



State of Ohio Environmental Protection Agency

Southwest District Office

40 South Main Street
Dayton, Ohio 45402-2086
(513) 285-6357
FAX (513) 285-6249

US EPA RECORDS CENTER REGION 5



446233

George V. Voinovich
Governor

March 11, 1991

RE: Carstab Corporation
Cincinnati, Ohio
U.S. EPA ID #OHD000724138

Mr. Mark Dunnigan
Ecology & Environment
111 West Jackson Boulevard
Chicago, Illinois 60604

Dear Mr. Dunnigan:

Please find enclosed materials requested per your March 8, 1991, phone call concerning Carstab Corporation. Attachment A pertains to enforcement action leading to the installment of the slurry wall and french drain. Apparently Director's Findings and Orders (F&Os) were issued against Carstab which they then appealed. These F&Os were revoked through issuance of a second set of a second set of F&Os based on Carstab's willingness to cooperate with Ohio EPA in determining the extent of contamination at the Carstab site. After some additional prodding from the Director of Ohio EPA, Carstab did contract out for some investigatory and remedial work, resulting in the installation of the slurry wall and french drain.

Attachment B contains news clippings and memorandums documenting worker exposure and the resulting problems incurred by employees of Carstab. Finally, Attachment C is a copy of a technical bulletin put out by the Thiokol Carstab Corporation in 1981. I also have two file folders full of technical bulletins describing various chemical products of Carstab's.

I hope this information is of use to you. If I can be of further help, please contact me at 513-285-6357.

Sincerely,

Amy F. Gibbons
Division of Emergency and Remedial Response



ATTACHMENT A

Ohio EPA

Re: Director's Final Findings and Orders
Carstab Corporation
U.S. EPA I.D. No. OHD000724138
Ohio EPA I.D. No. 05-31-0227

December 2, 1982

RECEIVED

DEC 6 1982

Environmental Protection Agency
SOUTHWEST DISTRICT

Raymond Phillips, Materials Manager
Carstab Corporation
1560 West Street
Reading, Ohio 45215

Dear Mr. Phillips:

Enclosed please find a copy of Director's Final Findings and Orders made and issued pursuant to the Ohio Revised Code Section 6111.03(H). The specific reasons for the action are indicated in the Order.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Board of Review pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed with the Environmental Board of Review within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency and the Environmental Law Division of the Office of the Attorney General within three (3) days of filing with the Board. An appeal may be filed with the Environmental Board of Review at the following address:

Environmental Board of Review
250 E. Town Street
Room 101
Columbus, Ohio 43215

Very truly yours,

James F. Flautt

James F. Flautt, Supervisor
Permit Data Management Unit
Permits & Manifest Records Section
Division of Hazardous Materials Management

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: *Virgil Davis* Date *12/2/82*

JFF/bsr

cc: Charles J. Wilhelm, Chief, DHMM
Sidney Stern, Staff Attorney, Legal Section
Kathy Homer, U.S. EPA, Region V
Rich Shank, DHMM
Dave Strayer, SWDO, DHMM

Ohio Environmental Protection Agency
ENTERED DIRECTOR'S JOURNAL

DEC 2 1982

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

Issue Date: Dec. 1, 1982
Effective Date: Dec. 1, 1982

By: W. David Davis Date 12/1/82

BEFORE THE
OHIO ENVIRONMENTAL PROTECTION AGENCY

Ohio Environmental Protection Agency
ENTERED DIRECTOR'S JOURNAL

DEC 1 1982

In the Matter of:

Carstab Corporation
1560 West Street
Reading, Ohio 45215

:
:
:
:

Director's Final Findings
and Orders

Pursuant to the Ohio Revised Code Section 6111.03(H), the Director of the Ohio Environmental Protection Agency hereby makes the following Findings and issues the following Orders:

FINDINGS

1. Carstab Corporation, a subsidiary of Thiokol Corporation, (hereinafter referred to as "this entity") owns and operates a manufacturing facility located at 1560 West Street, Reading, Ohio 45215. This facility produces chemical additives for use in the plastics and petroleum industry.
2. Incidental to these manufacturing operations, this entity generates a variety of industrial wastes as that term is defined in Section 6111.01, Ohio Revised Code. Several of these industrial wastes are also defined as hazardous wastes pursuant to Section 3734.01, Ohio Revised Code.
3. This entity has, in the past, disposed of quantities of these industrial wastes on the premises of their manufacturing facility.
4. On June 9, 10 and 18, 1980, the Ohio Environmental Protection Agency (Ohio EPA) made a series of subsurface borings at this entity's facility as part of an investigation into possible sources of a chemical leachate which was observed entering Mill Creek from several locations along the stream bank at the west edge of this entity's property. Based upon laboratory analyses of groundwater and leachate samples collected, the investigation concluded that the presence of subsurface wastes at this entity's facility was the cause of this leachate.
5. On July 30, 1980, the Ohio EPA requested that this entity conduct such additional hydrogeological investigations at their facility as were necessary to locate, identify and further characterize the source(s) of pollutants present beneath their property and to determine to what extent the subsurface wastes previously disposed of at the facility were migrating from the site. The Ohio EPA also requested that these additional investigations conclude by recommending remedial or mitigative measures which this entity could implement to prevent any further off-site migration of these pollutants.

6. Subsequent hydrogeological studies performed by this entity concluded that there are at least two areas on their property which contain significant quantities of subsurface wastes, that these wastes have entered the groundwater and that these wastes are migrating via a lens of sand and gravel to appear as leachate where that lense outcrops on the stream bank. From this area, the leachate freely enters Mill Creek. Constituents of the waste include aniline, toluene, chlorobenzene and 1,2 dichlorobenzene, and arsenic, chromium and lead compounds.
7. Both the groundwater and Mill Creek are defined as waters of the state pursuant to Section 6111.01, Ohio Revised Code.
8. Section 6111.04, Ohio Revised Code, prohibits any person from placing any industrial waste in a location where they enter waters of the state and declares any such action to be a public nuisance except in such cases where the Director of the Ohio Environmental Protection Agency has issued a permit to allow such action. That section also prohibits any person to whom such a permit has been issued from causing to be placed in waters of the state any industrial waste in excess of the permissive discharges specified in that permit.
9. This entity has never applied for nor been issued a permit as required by Section 6111.04, Ohio Revised Code, and the wastes currently entering the stream contain pollutants are of such type and quantity as would exceed the permissive discharge limits in any permit which might be issued should the appropriate application be made.
10. This entity is therefore responsible for maintaining a public nuisance which must be eliminated in order to properly safeguard the environment and protect the public health and welfare.
11. It is technically feasible and economically reasonable for this entity to comply with the following orders.

ORDERS

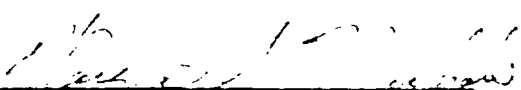
1. This entity shall, within 60 calendar days of the effective date of these Orders, complete such additional studies as are necessary to determine the extent to which wastes from their property are migrating off-site and recommend remedial measures sufficient to prevent such off-site migration to Mill Creek and groundwater. Those studies should include, but not necessarily be limited to, the identification of all areas where wastes are or have been buried on the property, an estimation of the types and quantities of waste in each of those areas and information concerning the migration rate and direction of travel of those wastes, and analysis of sediment in Mill Creek. The proposed remedial measures may address each area separately or the entire site as a whole.
 2. A detailed report of these studies, including general construction drawings of the recommended remedial measures, shall be prepared and submitted, in triplicate, to the Ohio EPA, Southwest District Office, 7 East Fourth St., Dayton, Ohio 45402, within 75 calendar days of the effective date of these Orders.
- I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

Ohio Environmental Protection Agency
ENTERED DIRECTOR'S JOURNAL

By: Virgil Davis Date 12/1/82

DEC 1 1982

3. After the report required by Order No. 2 has been reviewed and approved by the Ohio EPA, this entity shall construct those facilities which are identified as necessary to prevent the off-site migration of wastes. This construction shall proceed on a schedule acceptable to the Ohio EPA and it shall be this entity's responsibility to obtain any permits which may be required prior to initiating that construction.
4. In order to implement Order No. 3, above, after the Ohio EPA has reviewed the report submitted by this entity and approves the proposed mitigative action as to concept, these Orders shall be modified to include a schedule for the construction of the required control facilities. That schedule shall include elements for the submission of any applications for any permits which must first be obtained from this Agency.


Wayne S. Nichols
Director

Nov 30, 1982
Date

Ohio Environmental Protection Agency
ENTERED DIRECTOR'S JOURNAL

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

DEC 1 1982

By: W. Davis Date 12/1/82

TAFT, STETTINIUS & HOLLISTER

FIRST NATIONAL BANK CENTER

FOUNTAIN SQUARE

CINCINNATI, OHIO 45202

513-381-2838

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DAYTON, OHIO TELEPHONE 222-0050

WASHINGTON OFFICE

SUITE 708

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WASHINGTON, D. C. 20036

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ANNE COLE-PIERCE

* ON MILITARY LEAVE

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DAVID G. GAMBLE
ROBERT T. KEELER
OF COUNSEL

83 JAN 11 1983 January 6, 1983

Mr. Wayne S. Nichols, Director
Ohio Environmental Protection Agency
351 East Broad Street
Columbus, Ohio 43216

Re: Carstab Corporation v.
Wayne S. Nichols, Director
Ohio Environmental Protection Agency

Dear Mr. Nichols:

Enclosed is a copy of the Motion to Voluntarily
Dismiss which we are filing in the above-captioned case.

Sincerely yours,

R. Joseph Parker

RJP:va

Sid
Jenny
Didn't pay
Please handle
J.
[Signature]

TAFT, STETTINIUS & HOLLISTER

FIRST NATIONAL BANK CENTER

FOUNTAIN SQUARE

CINCINNATI, OHIO 45202

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ON MILITARY LEAVE

JOHN W. HUDSON
DAVID G. GAMBLE
ROBERT T. KEELER
OF COUNSEL

January 5, 1983

'83 JAN -7 AID 142

Sidney Stern, Esq.
Ohio Environmental Protection Agency
351 East Broad Street
Columbus, Ohio 43216

Re: Carstab Corporation

Dear Sidney:

This is confirm the agreement we reached in our meeting at Carstab on January 4, 1983. The Director will withdraw his Final Findings and Orders of December 1, 1982. As soon as we have been officially notified of that withdrawal, we will withdraw the Notice of Appeal from that Order.

No later than January 15, Tom Ontko will provide Carstab in writing with a list of information which the EPA believes is necessary. No later than February 15, Carstab will confer with Mr. Ontko to advise him which information is available, which will have to be developed and which, if any, cannot be developed. Assuming that Carstab and Mr. Ontko are able to reach an agreement as to the items to be either produced or developed, they will also agree by February 15 to dates by which the agreed-upon items will be supplied.

After all information has been exchanged, we will have continued discussions to determine what the next steps should be.

Sidney Stern, Esq.
January 5, 1983
Page 2

We realize that our agreement and the withdrawal of the Final Order is without prejudice to OEPA's right to refile the Final Order at anytime.

Your cooperation in resolving this difficult problem is greatly appreciated.

Sincerely yours,



R. Joseph Parker

RJP:vra

cc: Mr. Ralph Binns
James R. Stanley, Esq.

BEFORE THE
OHIO ENVIRONMENTAL PROTECTION AGENCY

In the Matter of:

Carstab Corporation	:	<u>Director's Final Findings</u>
1560 West Street	:	<u>and Orders</u>
Reading, Ohio 45215	:	
	:	
	:	
	:	


Pursuant to the Ohio Revised Code Section 6111.03(H), the Director of the Ohio Environmental Protection Agency hereby makes the following Findings and issues the following Orders:

FINDINGS

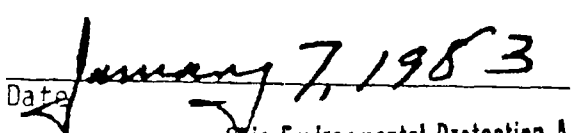
1. On December 1, 1982, Final Findings and Orders were issued to Carstab Corporation, Reading, Ohio, which required the company to comply with certain orders contained therein.
2. On January 4, 1983, representatives of Ohio EPA met with representatives of Carstab to discuss the Findings and Orders and to clarify any points which remained unclear relating to the Orders.
3. As a result of that meeting, the Ohio EPA has agreed to provide Carstab with a list of questions to be answered and Carstab has agreed to furnish all materials and data required to answer the said list of questions. OEPA will provide the list by January 15, 1983 and Carstab will produce the information by February 15, 1983.

ORDERS

1. The Findings and Orders issued to Carstab Corporation on December 1, 1982 are hereby revoked.


Wayne S. Nichols
Director

Date


January 7, 1983

Ohio Environmental Protection Agency
ENTERED DIRECTOR'S JOURNAL

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By:  Date 1/12/83

JAN 12 1983

Ohio EPA

RECEIVED

JUN 7 1983

Environmental Protection Agency
SOUTHWEST DISTRICT

May 23, 1983

Mr. Ralph Binns, President
Carstab Corporation
1560 West Street
Cincinnati, Ohio 45215

Dear Mr. Binns:

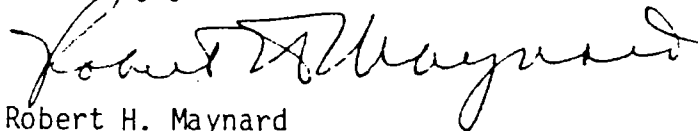
I am writing to you concerning the environmental condition of your facility in Reading. Investigations by this Agency have disclosed that several old disposal lagoons on your property are leaching a wide variety of pollutants into Mill Creek, including the hazardous chemicals chlorobenzene, dichlorobenzene, dichlorethane, toluene, trichlorethylene, analine and phenol.

I am further advised by my staff that discussions concerning remedial actions have been ongoing since 1979, with little, if any, affirmative and positive commitment towards remedial action being taken by your company. Indeed, it has been strongly recommended to me to refer this matter to the Attorney General of Ohio to force remedial actions by your company and seek civil penalties and damages for polluting the waters of the state.

Prior to referring this to the Attorney General, representatives of Ohio EPA would be willing to meet with officials of Carstab to discuss any serious commitments or proposals that Carstab may have for remedial actions that would enable this matter to be resolved without litigation.

Should you desire to meet and seriously discuss this matter, please contact Mr. Ben L. Pfefferle III of my legal staff at (614) 466-3491.

Sincerely yours,



Robert H. Maynard
Director

RHM:cw

cc: Morton Thiokol, Inc.
Terrence Fay, Esq.
J. Joseph Parker, Esq.

RECEIVED
OHIO EPA

MAY 25 1983

DIV. HAZARDOUS
MATERIALS MANAGEMENT

West Street
Reading, Ohio 45215
513/554-1554

RELE

Thiokol

CARSTAB CORPORATION

'83 JUN -6 A11:05

Ralph S. Binns
President

June 3, 1983

OFFICE OF THE PRESIDENT
THIOKOL CORPORATION

Mr. Robert H. Maynard, Director
Ohio Environmental Protection Agency
361 East Broad Street
Columbus, Ohio 43216-1049

Dear Mr. Maynard:

This will acknowledge your letter of May 23, 1983 regarding the environmental condition allegedly existing at our Reading plant.

While we disagree with a number of the statements and implications in your letter, we have been in touch with Mr. Pfefferle of your legal staff for the purpose you suggested. It is our hope and desire that Carstab and your agency can agree on the terms of a remedial plan that is both reasonable in its approach and effective in remedying any problems that may exist on the site.

Very truly yours,

Ralph Binns

R. S. Binns
President

jsf

cc: J. R. Stanley
R. C. Witman
J. J. Parker

Ohio EPA

June 27, 1983

Mr. Ralph S. Binns, President
Thiokol/Carstab Corporation
West Street
Reading, Ohio 45215

Dear Mr. Binns:


I am writing to acknowledge receipt of your letter dated June 3, 1983.

It is my desire that your company and Ohio EPA agree on a satisfactory remedial plan that will effectively alleviate and cure the environmental problems at the site in an expeditious fashion. Mr. Pfefferle is keeping me advised of the status of this matter so that I may closely monitor its progress.

However, if Carstab fails to make a good faith effort to develop and implement an effective remedial plan, I will reserve the right to pursue legal remedies.

Thank you for your prompt response and interest in this matter.

Sincerely yours,



Robert H. Maynard
Director

RHM/mts

cc: Ben L. Pfefferle, III
Edward Kitchen, DHMM

ATTACHMENT B

To Ed Blankenship

From Larry P. Krantz

cc: A. C. Noble
J. Johnson
File Ed Blankenship

Location Chemicals

Date December 20, 1977

Subject VERBAL REPRIMAND AND
WARNING

This will confirm the counseling session between us on December 14, 1977, at which your Foreman, J. Johnson, was also in attendance.

You were told that you had 212 hours off, to date, this year, and that no improvement has been made in your attendance since the reorganization of Development to Manufacturing. It was noted that your performance when on the job had improved, but that that is only half of what is expected of you.

You were instructed that unless you turned in a perfect record of attendance over the next five to six weeks, and then also make a drastic improvement in your attendance, that you would be suspended for a period of three working days, without pay.

You said that you hadn't realized you had lost that much time, and that you would definitely improve on your record.

Larry P. Krantz

LPK/fd

I, Ed Blankenship, understand that due to my poor attendance record, that it is expected that I will improve my future attendance record and demonstrate this by maintaining a perfect attendance record for the next five or six weeks. I understand that should I fail in this commitment, that I can be expected to be suspended from the payroll for three working days.

(Signed)

(Date)



FRANK WEIKEL

Adiders, Rodents Share Shelters On Gov. Square

OBSERVATION DEPARTMENT: The new Government Square bus shelters would be even better if the city of Cincinnati solved a rat problem in the area.

Rats have been observed coming from around trees planted in cement on the square.

JUDICIAL CANDIDATE JACK JENNEWAIN has kept his sense of humor during the campaign.

He, like others, laughed when the Cincinnati Bar Association rated him "unqualified."

When a recent edition of the *Catholic Telegraph* ran his campaign ad in a column between an ad for a FUNERAL HOME and some OBITUARIES, he told friends, "I don't suggest that the Cincinnati Bar Association is responsible for the political ad location, but having tried to bury my candidacy once they are not above suspicion."

Jennnewain added that he's placing his "faith" in an ad placed by the *Telegraph* just below his ad.

"That ad read: 'Our ads produce results.'"

VERNON (RED) THORNBURGH, once the voice of the Cincinnati Reds and a sportscaster in the Queen City for three decades, spanning the 1930s to the 1950s, recently celebrated his 71st birthday.

Twice.

Thornburgh was vacationing in the Orient. On October 15 he was in Hong Kong and had a birthday party. After the party the plane headed for Tokyo for fuel and then to Seattle. En route the plane crossed the international date line and it again became October 15. Red got another birthday party.

BENGAL FANS might take some hope in the equally poor play of Ohio's other professional football team.

10/25/78

Workers Scarred Deeply By Exposure To Chemical

BY BEN L. KAUFMAN
Enquirer Reporter

Their love lives wilted, their marriages failed, and at work, they suffered chronic absenteeism and inexplicable strife.

And making life even harder was the feeling Cincinnati Milacron Chemicals Inc. did not care when these troubled men raised questions about health and safety in their building.

"Everyone thought we were a bunch of nuts," Ed Blankenship recalled Tuesday. "Nobody would associate with us."

THESE TROUBLED men made dimethyltin dichloride at the Reading plant. Present and past employees interviewed by *The Enquirer* about their problems were, as a group, hostile.

They accuse management of ignoring signs of trouble on three shifts every day, of running the production line when ventilation was inadequate and pollution control equipment was faulty, and of paying them to work on what one man called "the biggest jury-rig you seen in your life" in the Building 27 pilot plant.

"You couldn't see the door sometimes for the fumes," Herb Burns said.

And making life still worse is the suspicion some men took better jobs as payment for silence, or "ratted" when coworkers began addressing health questions on the job.

TODAY, THE workers say their emotional and physical problems are caused by dimethyltin dichloride, its ingredients or chemicals given off during production.

They may not be typical, but four of the men who spoke to *The Enquirer* provide insights into the turmoil faced by possibly two dozen colleagues in the last eight years at Milacron.

Blankenship, 47, who won his battle with alcohol and had a Christian conversion two years before joining Milacron, saw his new approach to life deteriorate as he worked with dimethyltin dichloride.

Ken Roberts, 29, called himself a "chronic bitcher" about job safety. He took a better job when the company offered to send him to

lence, and then he complained long and loudly about what he feels the chemicals did to his competitive, aggressive approach to life.

Austin Reed, 48, took seriously what the men said was management's recommendation to anyone who did not like safety conditions in the nonunion chemical works: "Hit the gate."

Burns, 57, said Building 27 was "one Hell hole of a place to work. Nobody would do anything for us."

MEN INTERVIEWED said their emotional and physical problems eased as they got away from the dimethyltin dichloride process, but there is a fear some handicaps will linger. Occupational Safety & Health Administration (OSHA) officials said too little is known about the chemicals to which they were exposed to assure them otherwise.

Anger and paranoia are symptoms of chemical intoxication involving compounds found at Milacron, OSHA officials said, but the men insist anger and paranoia are healthy, given their experiences.

Blankenship and the others laughed heartily when told of a bumpersticker, "Paranoids Have Enemies, too."

Blankenship said it was years before he and his fellows grasped "something at work had caused a lot of men to lose their sex interest." As a group, they were more likely to boast of their prowess than to discuss sexual inadequacy, he said.

From that talk came the accounting of broken and troubled marriages.

BLANKENSHIP AND his wife spoke of their torment, especially poignant since it followed his accepting Christ and a welcome turn about as a husband and father.

He started in Building 27 in 1973 and did not see a physician until this March: Those were bad years.

Impotence, anger and violence marred their relationship. She suffered, trusting to God that better would come.

"One of us had to leave," Hazel Blankenship, a quiet woman, recalled of early 1978. He had torn apart the kitchen in a rage. Fearing his temper, Blankenship had rented an apartment and was ready to move

Workers Scarred Deeply By Exposure To Chemical

"I came close to killing her twice," the big, gentle man said, giving his wife a tender look she repaid with a warm smile. They could smile. In almost seven months away from Milacron, his moods had turned sharply for the better.

Their children, who had restrained his violence more than once, "hated to see him walk through the door," Mrs. Blankenship said. "They knew something was wrong with their father."

Today, a loose, warm camaraderie is evident among father and sons.

BLANKENSHIP WAS among the lucky. Reed and his wife are separated. At least seven others have been divorced, Blankenship said. Few came through without deep scars.

When the employees went to management with questions about the safety of the materials with which they worked, they were rebuffed, Blankenship and others said. "They did discourage questions," a younger worker added.

They were hassled over absenteeism, Blankenship said, but when they asked for physicals, company officials said providing the examinations would be admitting a problem existed with dimethyltin dichloride.

When Reed was interviewed first for this story, he said, "It's bad enough for me to start looking elsewhere."

After 19 years with Milacron, Reed said he resented management's response to complaints: "They're always insinuating it's all in your mind."

REED WAS a maintenance worker with more than 10 years with the firm when he was put on the "tin" compounds production line.

"Nobody else wanted the job," he said, recalling "a lot of open fumes" in Building 27. He would "feel bad all the time."

He stayed with it because it allowed him nights free to follow his talents as an evangelist.

Last week, he quit, dedicating himself full-time to the Charity House of Prayer holiness church he opened at 913 Martin Pl.

Idleness to the company but he said that men took shift

survey. Few adults know all the answers, either. Lung Association wants new law passed to stop cigarette sale to minors. Page C-3.

Wednesday, October 25, 1978



Enquirer photo BY MICHAEL E. KEATING

ED BLANKENSHIP, with his wife, Hazel

which appear to show a disregard for equipment problems and different waste handling procedures when Metropolitan Sewer District inspectors were in the area.

TUESDAY, MILACRON admitted it had not provided adequate medical surveillance in buildings where dimethyltin dichloride has been made at various times since 1970. The admission followed a citation to that effect by OSHA.

"Twenty-seven was the Hell hole," Ken Roberts said.

"Twenty-seven was where everybody was hurt. The whole thing was atrocious," he said. "We were the Guinea pigs and they collected the money," Roberts said. When he complained, Roberts

recalled, "I was told to 'hit the gate.'"

Roberts took a job away from dimethyltin dichloride, but he told his replacement:

"You be careful with this stuff. You walked in here on two legs and you want to walk out the same way."

Roberts, his wife and father-in-law built a handsome home near Perinton in Clermont County.

Today, he spends more time sitting around thinking about all the work left undone. "I don't have the motivation I once had. Anymore, I keep putting it off."

And drawing on the baseball metaphor from his youth as a high school star, Roberts said, "My mind wants to wander off in left field on you. A lot of things I can't remember any more."

OEPA Tours Waste Site, Plans Testing

JUNE 10, 1980 EPA AML

BY BEN L. KAUFMAN
Enquirer Reporter

READING—Chemical company officials Monday admitted toxic wastes are buried on the former Cincinnati Milacron Chemical Inc. property.

Earlier in the day, representatives of Carstab Corp., the new owners, guided an Ohio Environmental Protection Agency (OEPA) inspector to eight sites.

And the former owners, Cincinnati Milacron Inc., claimed they had done nothing illegal during the 30 years they owned the facility and buried their industrial wastes there.

Carstab guides "told me what had been done in various areas," said Mike Dalton, an OEPA geologist.

"THEY HAD a map marked with locations . . . where materials had been dumped. The earliest date they had was 1950."

In addition to one lagoon, a land burial site still was in use, Dalton said. "They were still dumping small amounts there."

Dalton's visit was part of OEPA's investigation of toxic wastes oozing through the soil into the nearby Mill Creek. Neighboring properties, Cincinnati Drum Service Inc. and Pristine Inc., also are being examined.

Thiokol Corp. of Newtown, Pa., bought the Milacron Chemical works in April and renamed it Carstab.

At Milacron headquarters in Oakley, press officer John Reading read the company's formal response to questions about its waste handling practices in Reading:

"DURING THE time that Carstab Corp. was owned by Cincinnati Milacron Inc., the corporation complied with the applicable governmental regulations, relative to the disposal of chemical wastes on its West Street property."

He would not answer questions about those wastes, dumping practices or regulations. Previously, Milacron officials said the wastes no longer were their property or problem.

State and federal officials said Milacron may be right about the legality of their waste disposal sites, but the company may be liable if those legally buried chemicals are polluting the creek or ground water illegally.

The most recent waste burial was 1973, according to Dalton's guides, but former Milacron employees said they filled steel drums for on-site burial or buried them as late as 1977.

And they warned Dalton he was talking to company men who were too new to know what had been done.

Dalton said he is aware of that. "Their information is what they've been told," he said. "I don't necessarily accept what they say as the final word."

WHEN ASKED what he had shown Dalton Monday morning, Carstab's Bob Neubert said, "I'm sorry, I have no comment." Dalton could not remember the second man's last name when interviewed.

When Carstab President Ralph Binns was called for comment, an aide said, "He is in a meeting." Binns, a long-time Milacron Chemical

official who stayed when Thiokol Corp. bought the works, has not returned calls.

Dalton said he still hopes to talk with men who worked at Milacron when wastes were buried there.

After his tour and a conference with Miles Datesman, a colleague from OEPA's emergency response team, Dalton planned to "check over that whole area with my metal detector."

He is looking for steel drums which former employees say are under as much as 15 feet of soil. Dalton also plans to use an auger to take soil samples as deep as 21 feet.

IF THE chemicals leaked into sand and gravel, he says he will be able to find them in water samples.

That is what another OEPA investigator, Bill Barrow, said he believes has happened. It would explain the chemicals "leaching" through the soil and creek banks.

Dalton's soil samples will be analyzed by the Ohio Department of Health and compared to tests of pollutants collected along company property at the Mill Creek. If matching wastes can be found in soil samples, OEPA has the basis for an enforcement action against a specific company.

In the absence of further evidence, Dalton repeated an OEPA assurance that the seepage is not a clear and present health hazard so far. It is against the law to allow pollutants into the stream and that is what keeps OEPA on the job, he noted.

Poisons Buried 'By The Skid-Loads'

READING—Former Cincinnati Milacron Chemical Inc. employees Monday warned state officials that a tour of the company's former property is not a reliable guide to locations and volume of industrial wastes buried there.

One employee, Ed Blankenship, told Ohio Environmental Protection Agency (OEPA) officials Mike Dalton and Miles Datesman that Milacron Chemical used two bulldozers to handle the waste burial in the field on the southwest corner of the fenced company land. That is the part nearest community recreation areas.

BLANKENSHIP RECALLED preparing barrels of waste for burial

workers in the plant could back them up, but remain silent out of fear for their jobs.

Monday, one of those men said he saw dozens of drums "hailed back there" to a pit and waiting bulldozer for burial. Asking his name be left out of the paper, he guessed "at least 100" drums are buried in the field inside the fenced property. "I know they're buried there. . ."

Some waste came from hurried cleanups in anticipation of inspections by the Occupational Safety

Health Administration (OSHA), Blankenship said.

OTHER WASTES, including "bad

OSHA two years ago with complaints about health hazards in the buildings where dimethyltin-dichloride was made. The OSHA investigation led to citations and fines.

Dalton said Carstab Corp.'s Bob Neubert and a second Carstab man knew what was in "some of the drums" they led officials to on Monday's tour. Employees said they did not know the contents of other drums. Fewer than a dozen drums were buried, according to them, although other wastes were poured into lagoons, which have been covered with dirt.

OEPA has known about the pollutants leaking into the Mill

(above) quit Milacron Chemical after 19 years, saying safety questions with "hit the gate." Building 27 (right) is the most exposures to suspected chemicals took place.

BY WAYNE BUCKHOUT
Business Reporter

Ronald J. Young said "it really hurt" him to hear Cincinnati Milacron workers accuse him of ignoring a serious health problem at their Reading chemical plant.

Young said he and others at the Cincinnati area office of the Occupational Safety & Health Administration (OSHA) went beyond standard procedures to inquire into the single, informal complaint March 20.

The caller was Edward Blankenship, who had worked at the Reading plant making a chemical additive for plastics since 1973. The additive is called dimethyltin dichloride.

He came to OSHA the next day,

complaining and asking for information about chemicals he believed present in his work place, Young said.

"He was confused. He started talking about killing people," Young said. "I began to wish I hadn't closed the door to my office."

BLANKENSHIP TALKED about fits of aggression, loss of memory and other symptoms among men producing the chemical. But he could not identify the location of the plant and refused to make a formal complaint, Young said.

Looking back, with six months away from those chemicals, Blankenship knows how menacing he had been.

Some of Blankenship's coworkers use OSHA inspectors of giv-

ing the company advance warning of inspections related to their emotional and physical problems.

Young said OSHA's first inspection was a surprise to Milacron. On subsequent visits, he said, he called Milacron the evening before morning visits to avoid difficulties getting through the gates.

And at least once, his inspectors sampled suspected spots on the second, afternoon shift on a surprise visit, Young added.

OSHA officials soon learned Milacron produced dimethyltin dichloride in Reading. They also learned Milacron had reduced the hazard to employees by moving production of the chemical to a newer facility, Building 12, at about the same time the complaint was filed, he said.

INSPECTING BUILDING 27, which workers identified as the original production site, was fruitless without production going on, Young said. Several tests of the level of toxic chemicals in the air at Building 12 showed no violations.

"We could have gone in and measured and found airborne levels low and say 'that's it—case closed.' We didn't do that," Young said.

Instead, OSHA hired a team of physicians at the University of Cincinnati to examine 18 men who had worked in Building 27.

The analysis of those tests is incomplete, but Young said interviews with some of the men confirm the workers' self-diagnosis.

"What clearly comes through is that there are people who are sick

Enquirer photo BY FRED STRAUB

metro

The Cincinnati Post, Tuesday, November 14, 1978 1

Safety officials inspect Milacron plant

By Douglas Starr
Post staff reporter

In a surprise inspection that federal officials say should last several days, investigators from the U.S. Occupational Safety and Health Administration entered the Cincinnati Milacron Inc. plant in Oakley today to look into complaints of health hazards there.

The investigation began Monday and comes on the heels of a much-publicized action in which OSHA cited the company for a "serious violation of federal law in failing to provide adequate medical surveillance of its employees and fined the firm \$300.

Filed by a firm employee in late October, the complaint lists excessive dust, acid fumes, solvent vapors and other vapors as possible health hazards. It alleged that one of the company's fume detectors is not working. It also said the company failed to post required notices informing employees of their right to complain about unhealthy working conditions.

BILL MURPHY, acting director of OSHA, said it was against agency policy to reveal who made the complaint. He said that a team of four inspectors, including Industrial Hygienist Ronald J. Young, is handling the case. John P. Reading, director of public relations for Milacron, said the only comment he could make is that the firm has posted a notice urging its employees to cooperate with OSHA inspectors. Because of recent bad publicity and misunderstandings, he said, all questions would have to be put in writing and answered by letter.

The company suffered what

president Ralph S. Binns characterized as "scare rumors and misleading articles" when it was revealed in late October that several employees suffered side effects from inhaling certain toxic fumes. Workers said they experienced nervousness, loss of memory, loss of sex drive and apparent nerve damage while working on one of the company's chemical production lines.

THE COMPLAINTS led to a series of five federal inspections over a seven-month period and the \$300 fine.

Company president Binns has written to about 300 plant employees

assuring them that "our plant is safe." Following two accidental exposures to toxic fumes in 1971 and 1972, in which five persons were sickened, he said, the process was changed and safety procedures tightened.

"We have never hidden or denied those incidents,"

But workers reacted bitterly. "Where the hell has he been for the last five years?" complained Herb Burns, a chemical operator now on sick leave from Milacron. "Why wasn't he interested when we were hollering to high heaven for help and he wouldn't give it to us?"

"It was like a concentration camp," he added.

BURNS SAID that unhealthy conditions in the plant continued long after the 1972 incident. Unhealthy conditions have existed during the last five or six years, he said.

Referring to the 1971 and 1972 incidents, employee Ed Blankenship said, "We were never told about those five people. We were never warned."

Both men said their supervisors told them that they were working with chemicals not considered to be harmful.

Milacron Fined For Health-Safety Violation

BY BEN L. KAUFMAN
and WAYNE BUCKHOUT
Enquirer Reporters

Cincinnati Milacron admitted Tuesday that it failed to provide adequate medical protection for chemical workers at its Reading plant and agreed to pay a \$300 fine.

The Occupational Safety & Health Administration (OSHA) cited Milacron Chemicals Inc. Monday, saying it violated the 1970 Occupational Safety and Health Act.

OSHA cited the section which requires an employer to furnish a work place "free from recognized hazards that were causing or were likely to cause death or serious physical harm to employees."

THE CITATION orders Milacron to upgrade its medical surveillance of affected employees by November 22. "We don't intend to contest the OSHA complaint," John P. Reading, Milacron public relations director, said late Tuesday.

"We recognize that we did not have adequate medical surveillance and that's what we were cited for."

Milacron has posted the violation notice at its chemical plant, he added.

OSHA officials say they do not know how many men have been affected by chronic and acute exposure to dimethyltin dichloride at Milacron. The Milacron spokesman said "fewer than 20" workers are involved.

Preliminary medical and industrial hygiene studies point to production of a plastics additive called dimethyltin dichloride as the

on the inside

• More stories, photos on Page C-1

cause of the reported emotional and physical problems.

Reading said Milacron now believes the dimethyltin dichloride is not what made workers sick. Only exposure to other chemicals released during dimethyltin dichloride production caused the problems, he said.

MEDICAL REPORTS to date have not drawn such distinctions.

A half-dozen present and former employees, interviewed by The Enquirer, said their minds and emotions were "scrambled" as a result of working with dimethyltin dichloride.

Marriages failed or suffered from impotence and anger which the men blame, now on exposure to chemicals at Milacron.

The men did not hesitate or blush when they talked about such personal relations.

"Our love life deteriorated almost to nothing," one employee said.

OSHA Industrial Hygienist Ronald J. Young, who first inspected the Milacron chemical facilities in March, told The Enquirer, "We have men who have been made sick there."

Section 5(a)(1) of the 1970 federal law is a catchall clause used by OSHA when circumstances prevent it from pinning down more specific charges. In Milacron's case, the production line, on which suspicion centers

was shut down before the first complaint reached OSHA, Young explained.

Dimethyltin dichloride was made in a pilot plant in Building 27 for about eight years, the Milacron spokesman said, and more recently, in newer Building 12.

MILACRON CLOSED down the Building 27 production line early this year, before employee Edward Blankenship went to OSHA in March, Young said.

OSHA inspectors checking production in Building 12 since that first complaint have found no health violations, Young added, and Milacron has co-operated with OSHA during the continuing investigation.

Young said that helpfulness was one reason Milacron was not fined the maximum \$1000.

Although it cost about \$500 per man, OSHA decided to pay for thorough physicals for Milacron employees who had worked on dimethyltin dichloride. It wanted to know more than inspections showed, Young said.

Eighteen workers accepted OSHA's offer of free examinations. Dr. W. Donald Ross, a Cincinnati psychiatrist who examined some of the men, referred to "tin poisoning" in a Workmen's Compensation report on Blankenship.

The family of chemicals of which dimethyltin dichloride is part is known commonly as "organo-tin" or simply "tin" compounds.

Blankenship, who first alerted OSHA to problems at Milacron Chemical, provided The Enquirer with his medical records.

ROSS ATTRIBUTED Blankenship's problems to "exposure to chemicals in the organic

tin process since these symptoms were so similar to those of other men with comparable exposure."

Another member of the OSHA consulting team, neurologist Dr. John Steiner, said Blankenship suffered "dimethyltin intoxication" at Milacron.

Men interviewed by The Enquirer call Building 27, a three-floor pilot plant, the "Hell hole."

They accuse Milacron of callously disregarding requests for improved ventilation.

Many of them men said they were told to "hit the gate" if they did not like conditions in the nonunion shop. Some have. They also report that many of the problems they attribute to working on the dimethyltin dichloride process have eased since leaving Milacron.

Young said there is too little human research on dimethyltin dichloride or its ingredients to know if all of the symptoms will vanish.

OSHA'S CHIEF medical consultant, Dr. Edward A. Emmett, who directed the team examining Milacron workers, said Tuesday he has not analyzed the findings fully. Still, he supported OSHA's insistence that Milacron more closely monitor the health of employees exposed to the tin compound manufacturing process.

Workers did more than complain about conditions inside the Milacron buildings. They also asked whether neighbors in Reading were exposed to dimethyltin dichloride. Some of the men say that external pollution control equipment in Building 27 was faulty.

(con't.)

OSHA Centers New Inquiries On 1 Building

BY BEN L. KAUFMAN
Enquirer Reporter

The Occupational Safety & Health Administration (OSHA) Thursday renewed its questioning about worker complaints at Cincinnati Milacron Chemicals Inc. in Reading. New OSHA queries concentrated on Building 27 that workers call the "Hell hole." Thursday, Ronald J. Young, OSHA industrial hygienist, asked Milacron officials about every chemical made in Building 27 during late 1977 and early 1978. Those were the months Milacron concedes it had repeated production "upsets" there.

He was looking for chemicals, other than those involved in producing the suspect dimethyltin dichloride, which might be associated with the workers' physical and emotional problems.

MEANWHILE, AT the National Institute of Occupational Safety & Health (NIOSH), Dr. Trent R. Lewis said reported worker symptoms—rage, depression, impotence—resemble those known to result from brief but intense exposure to methyl chloride. Methyl chloride is an ingredient in Milacron's dimethyltin dichloride production process.

Lewis is in charge of research into toxic chemicals for NIOSH at the Taft Research Center in Cincinnati. He is not involved in the Milacron investigation.

Young and others at OSHA say their evidence points to methyl chloride as the cause of the workers' problems. But a final determination must await final analyses of detailed physicals on 18 Milacron workers. The analyses are incomplete.

Young inaugurated the original investigation of Milacron in March after Milacron chemical worker Ed Blankenship complained exposure to dimethyltin dichloride was destroying him, his marriage and his family.

From the start, OSHA "limited the scope of our inspections" to dimethyltin dichloride, Young said. "That's the compound he (Blankenship) discussed. That's the compound we investigated."

BUT BLANKENSHIP and other workers, including Herb Burns and Ken Roberts, say OSHA did not look far enough when they were at Milacron.

"There's something to that," Young conceded Thursday afternoon. "There are other things that we could look at."

OSHA did not know what else was made in Building 27 before or during its inspections, Young acknowledged. "I guess I probably should at least inquire what is made there," he added.

"If they are running something that is hazardous, I will sample the air," he promised Thursday afternoon, and within an hour, Young had checked with Milacron.

Interviews and medical examinations of workers from Buildings 27 and 12, where dimethyltin dichloride has been made at various times since 1970, disclosed complaints of uncontrolled rages, inadequate sexual lives, and "scrambled" minds and memories. Marriages collapsed or suffered as a result.

Young said Blankenship's initial insistence the dimethyltin dichloride production process was making the men ill persuaded OSHA to limit the investigation to that chemical.

"I guess we went into it with blinders on," Young conceded. "We only investigated the one process."

Young denied Milacron employees told him of organic tin compounds being made in Building 27 during his inspections. He also denied their allegations that he refused to inspect Building 27 when production of other chemicals was going on.

Building 27 is a pilot plant for Milacron chemicals, where products go from research and development to limited production.

Young's conversations with Milacron officials Thursday disclosed another tin compound, butyltin, had been made in Building 27 in March after OSHA began sampling the air in Building 12 where dimethyltin dichloride was being made.

"No one told us they were running those batches of butyltin until too late," Young said.

Similarly, no one complained to OSHA about problems associated with dimethyltin dichloride while it was being made in Building 27, he said.

Nothing in butyltin relates to the reported symptoms, Young said, so he is comfortable with his initial investigations.

"It all points to dimethyltin dichloride in Building 27," he said.

(con't.)

Study Of Plant Chemicals Has Only Some Answers

BY BEN L. KAUFMAN
Enquirer Reporter

It is impossible to specify which chemicals created physical and emotional problems for workers at Cincinnati Milacron Chemicals Inc. in Reading, according to a government report being issued today.

But there are some prime suspects, including the plastics-related compound the men had been producing for almost eight years.

The U.S. Occupational Safety & Health Administration (OSHA) commissioned three physicians and a neuropsychologist to examine workers complaining of rage, mental confusion, depression and impotence.

The findings of Drs. Edward A. Emmett, John Steiner, W. Donald Ross, and Robert G. Tureen were delivered Friday to OSHA and Monday to officials of Cincinnati Milacron Chemicals Inc.

THE STUDY will repeat OSHA suspicions that the men's nervous systems were affected by "heavy" exposures to the dimethyltin dichloride they were making or one of

the ingredients, methyl chloride.

Other chemicals, including those released during "upsets" in dimethyltin dichloride production last winter, may have been involved, the report will suggest.

It could have been a combination of chemicals in Building 27 which affected the men, the report also will indicate.

In addition to that report, OSHA will release new citations against Milacron's Reading plant from the full health-and-safety inspection in recent weeks, government officials confirmed.

Milacron spokesman John Reading was asked for the company's response Monday afternoon, but he did not reply.

THE HEALTH problems were brought to public attention last March by a worker, Ed Blankenship, who complained to OSHA and *The Enquirer* about conditions in Building 27 at the Reading facility.

Blankenship has been off work since then with problems attributed initially to the acute chemical exposures.

Dimethyltin dichloride produc-

tion in Building 27 was stopped before Blankenship went to OSHA.

For that reason, more specific conclusions by OSHA industrial hygienists and the medical/psychological team were impossible, the report indicates. The exact extent of exposure also was impossible to determine.

The OSHA report focuses on production problems in Building 27 last winter, but Milacron has been making dimethyltin dichloride—an important ingredient in PVC pipes—at Reading for eight years.

Today it is made only in Building 12.

WHEN OSHA began investigating health problems among the dimethyltin dichloride workers, it agreed to be examined at public expense by the OSHA four-man team.

According to Milacron spokesman Reading, 14 of the employees from Building 27 never were off work. Milacron encouraged them to see the physicians and neuropsychologist Tureen on company time and, he added, if necessary, to use a company vehicle to get to the examinations.

Despite Milacron's assurance the symptoms of anger and impotence are "understood to be temporary," the men and their physicians are unsure.

Milacron employees and former employees say they still cannot rely on their memories and powers of concentration as once they could.

THE FOUR who have been off work for weeks or months were contacted Monday by *The Enquirer*.

Steve Brotherton is back on the job. Brotherton has continuing problems, according to his fellow workers. Last week, Milacron spokesman Reading said Brotherton became ill at work and required attention at General Hospital where OSHA team members Steiner, a neurologist, and Ross, a psychiatrist, work. Brotherton refused to answer questions about his health.

Blankenship remains unable to return to work.

He has an advisory letter from the OSHA team telling him he is not ready for any on-the-job responsibility.

Herb Burns is home. Burns

said his private physician considers him totally disabled and attributes his heart and lung problems in total or in part to conditions at Milacron.

The fourth man, Perry Wood, remains home.

Wood said his chronic bladder problems are caused by the chemicals at Milacron and the OSHA team has told him not to go back in his condition.

OSHA CITED Milacron in October for inadequate medical surveillance of the affected workers.

Milacron did not contest the citation or fine. The company began improving its medical surveillance after the initial OSHA inspections without waiting for the citation and Milacron has met all of OSHA's subsequent requirements, according to Ronald J. Young, OSHA industrial hygienist who led the inspection team.

Now acting director for OSHA in the Cincinnati area, Young said, Monday, Milacron is making changes in its Reading operations to comply with uncontested citations that will be made public today.

Milacron fined

Firm says violations being corrected but employees vow to file lawsuit

By Douglas Starr
Post staff reporter

A government report on health conditions at Cincinnati Milacron Inc. in Reading says three chemicals may have caused nervous disorders among men working at the plant, and it cites the company for 15 "serious" health and safety violations resulting in a \$6380 fine.

But it may not do the men much good.

Under Ohio law, workers may not sue a company that carries Workers' Compensation Insurance for its employees.

Milacron carries such insurance.

THE MOST that disabled Milacron workers can collect is \$216 per week for life plus medical expenses, according to Neil Webner, director of public affairs for the Ohio Bureau of Worker's Compensation.

"Workers' compensation in Ohio does not recognize what civil courts recognize as pain and suffering," he said.

But employees say they will sue. "We had a pow-wow," said Ed Blankenship, one of several Milacron workers suffering attacks of forgetfulness, anger, and impotence as a result of handling certain chemicals at the plant. "We're definitely considering a suit."

AT THE SAME time, researchers who took part in the investigation said the Milacron case may prove a landmark in the field of occupational health.

"The things we observed are not normally associated with poisons," said Dr. Edward A. Emmet, the Johns Hopkins University physician who headed the team that examined the men.

In the future, he said, doctors and plant supervisors will be able to watch for such behavior—such as short temper, confusion and memory problems—know it may be a sign of chemical poisoning, and remove the workers from the hazard.

Among the recommendations

prepared for the Occupational Safety and Health Administration, the doctors recommended that managers at Milacron be instructed to recognize the symptoms of dimethyltin-dichloride related poisoning.

The doctors also recommended that employees working with the chemicals wear respirators and protective clothing; be educated about the effects of the chemicals and receive medical checkups both regularly and whenever symptoms occur.

IN AN ATTACHED report Tuesday, the Occupational Safety and Health Administration cited the company for 15 serious health and safety violations—a result of inspections that took place over the last several weeks. Violations ranged from a lack of railings around several stairwells and floor openings to unevenly placed steps to not instructing employees to wear protective clothing while handling toxic chemicals.

Previously, OSHA officials had

fined Milacron \$300 for failing to provide adequate medical surveillance.

"All of the hygiene related (violations) have been corrected," said John Reading, public relations director for the firm. "More than half the safety-related ones have been corrected."

"All other violations will be corrected by 1979," he said.

But employees remained bitter. "It ain't what you're doing now," one said. "It's what you did then."

THE REPORTS stem from complaints last spring among workers who suffered from nervous disorders while working in the firm's Building 27, making the plastics additive dimethyltin-dichloride. Examining 22 workers, the doctors found more frequent and serious disorders among workers who were exposed to "heavy" concentrations of the substance, or the chemicals used to make it.

There were a number of particularly striking features," the report

said. The memory loss could be quite marked; rage attacks and deep depression tended to occur within a few hours of each other, two individuals displayed alternate bursts of anger and crying during examination.

Researchers said that although the effects seem to diminish with time, it is impossible to say how long the behavior changes will last. Worker Blankenship "went berserk" in his own words, a week ago, eight months after going on sick leave.

THE PROBLEM could be one or any combination of three chemicals, according to the report: dimethyltin-dichloride, trimethyltin-dichloride, or methyl chloride.

The exact chemical will be difficult to determine because the building where the incidents took place is closed.

Dimethyltin-dichloride is still manufactured in Milacron's Building 12, but the building is considerably

more modern than Building 27, inspectors found no hygiene violations there.

TUESDAY'S FINDING reports the doctor's interim report. "final report will be issued within studies on 'one or two' other individuals are prepared and of neurological reports are ready."

The study has been sent to National Institute For Occupational Safety and Health and to the Environmental Protection Agency for further study to determine whether chemicals actually caused the damage and what their environmental effects might be.

Asked about what Milacron would do, Reading said, "We have retained one of the foremost industrial hygiene consulting firms in the United States to completely revamp all our operations and recommend anything that will make our safety program better."

OSHA Probing Spectrum Of Milacron Procedures

BY WAYNE BUCKHOUT
Business Reporter

The Cincinnati office of the Occupational Safety and Health Administration (OSHA) is conducting a broad-based investigation of health and safety procedures at the Cincinnati Milacron Chemicals Inc. Reading plant.

The investigation, which began with an surprise inspection at the plant Monday, is in response to a nine-point complaint listing possible violations of health and safety regulations throughout the plant.

The complaint was filed by Edward Blankenship, a Milacron chemical worker on disability leave from the company since March, 1978. It charges Milacron with, among other things, failing to post a copy of OSHA regulations that explain how employees may report work-place hazards. It also charges improper exposure to solvents and other chemicals in several buildings where chemicals are produced.

BLANKENSHIP ALSO filed a complaint

with OSHA in March that triggered the agency's investigation into reports of emotional and physical illness among workers making dimethyltin dichloride. Dimethyltin dichloride is a chemical further reacted to make an additive for plastics.

That investigation culminated in an OSHA finding of a serious violation of federal safety statutes reported in *The Enquirer* October 25. Cincinnati Milacron agreed to pay a \$300 fine and take corrective measures to monitor more closely the health of employees making the chemical.

The Enquirer also reported the impact on Milacron employees and their families caused by exposure to the dimethyltin-dichloride process in Building 27. Many men who worked in the building reported an inability to concentrate, loss of memory, extreme irritability, violent behavior and impotence.

These symptoms are similar to those scientists say are caused by extreme exposure to methyl chloride, an ingredient in the dimethyltin-dichloride production process.

THE CURRENT investigation, however, does not focus directly on dimethyltin dichloride, but includes the entire range of industrial chemicals Milacron makes at Reading.

OSHA industrial hygienist Ronald Young confirmed that he and three other inspectors walked through the Reading plant Monday, looking at buildings other than those housing dimethyltin-dichloride production units. He said the required OSHA information posters were in place at the plants.

Young said Milacron turned over on Monday its records of all occupational injuries and illnesses among all workers at the plant since 1971. All companies have been required by law since 1971 to keep track of injuries and illnesses and turn the record over to OSHA at the agency's request, he said.

Information will be studied along with other findings from inspections, he said.

Two OSHA inspectors returned Tuesday and inspected buildings and interviewed employees. Young said more inspections are likely before the investigation is completed

and findings are determined.

Meanwhile, Cincinnati Milacron Chemicals President Ralph Binns said in a letter to the plant's 300 employees that Milacron has hired an industrial-safety consultant to inspect the plant for any safety or health violations and report them to the company.

BINNS' LETTER also included the company's response to *Enquirer* reports based on interviews with company executives October 25, that the company had no knowledge of any illnesses among employees linked to methyl-chloride exposure prior to incidents in December, 1977, and January, 1978.

The letter said the October 25 interviews "zeroed in on recent incidents, and (company executives') replies were limited to those incidents."

Binns said, "The company is on record in many places that some of its employees were exposed to methyl chloride in 1971-72."

Binns said five employees were overexposed to methyl chloride at Building 27 in two incidents in 1971 and 1972.

Workers file \$4 million suit against Milacron

By Douglas Starr
Post staff reporter

Eight workers who say they were sickened by fumes at Cincinnati Milacron Chemicals Inc. have sued the firm for a total of \$4 million. The employees' wives also sued for a total of \$600,000 for losing "the services and consortium of their husbands."

"You can rest assured this case will wind up in the state supreme court," said Jerald D. Harris, the attorney representing the workers. He filed the suit today in Hamilton County Common Pleas Court.

The suit involves a much-publicized case last fall of several men who became ill at the chemical plant in Oakley. Exposed to chemical fumes, the workers suffered fits of rage, forgetfulness, loss of sex drive and possible nerve damage. Several still cannot hold jobs.

After these complaints, federal investigators fined the firm a total of \$6680 for 15 "serious" health and safety violations and for failing to examine the workers.

The workers charge that Milacron knew about the hazards of dimethyltin dichloride and related

chemicals but failed to inform them. Such a failure, they charge, "was intentional, malicious and in willful and wanton disregard" for the employees' health.

The workers also allege that despite praise for cooperation from the federal government, the company actually hampered the investigation of the health problems.

A key issue that will emerge in the case is the validity of Ohio's Workmen's Compensation law. Under that law, workers may not sue a firm that carries workmen's compensation insurance. Milacron is such a firm.

"That will be a major contention in this litigation," Harris said. "It is our opinion that it (the law) doesn't apply because of the intentional nature of this particular action."

Asking for a jury trial, the workers sued seven members of the Milacron staff. The workers also filed against 26 "John Doe" firms, whose identities are unknown but which may have sold the hazardous chemicals to Milacron.

Milacron officials could not be reached for comment.

Milacron Denies Early Knowledge Of Employee Ills

BY BEN L. KAUFMAN
Enquirer Reporter

Cincinnati Milacron Chemicals Inc., where executives insist safety comes first, did not notice some bizarre emotional and physical problems of employees until Occupational Safety & Health Administration (OSHA) inspectors arrived, company officials said Wednesday.

"I think that we would have to say that," said Dr. Robert C. Witman, plant technical director. "I was not aware of any symptoms nor was Joe." He referred to Joseph A. Mazzel, manager of the plant in Reading and the former safety officer.

Even when the symptoms were identified and questions of plant conditions were raised, Milacron left it to OSHA to pay for physicals for 18 of the men who worked on a suspect chemical production line.

Witman added that the symptoms were the kind which men hid from each other and rarely discussed: uncontrolled rage, impotence and marital problems.

OSHA cited Milacron Monday, saying it had insufficient medical surveillance at the Reading plant.

Today, however, Mazzel said, "We are taking all of the corrective actions we know how."

"WE WANT all of our people back to work with us. Our objective is to have a safe working environment."

As for co-operating with OSHA, "We went the extra distance," Mazzel added, a senti-

on the inside

• Outage stopped pumps, Page B-1

ment confirmed by OSHA officials.

Still, four years ago, Milacron did not increase its medical surveillance when a rival had trouble while producing dimethyltin dichloride, the same chemical the 18 Milacron men worked with.

Given what they could learn then, Milacron officials judged their process was so different that there would be no similar problems, Mazzel and Witman said.

"We didn't send people to the doctor," Witman conceded. "As far as we were concerned at the time, we didn't have any problems."

Witman, who developed the original chemistry for Milacron's dimethyltin dichloride process, and Mazzel have been associated with the chemical's production from the start.

EMPLOYEES INTERVIEWED by The Enquirer in recent weeks attribute their impotence and broken marriages, uncontrolled rages, depression and other problems to working on Milacron's dimethyltin dichloride production line during the past eight years.

Three men—Ed Blankenship, Herb Burns and Perry Wood—are too ill or unwilling or unable to work again where dimethyltin dichloride, an intermediate compound in the

production of Milacron's TM-181 plastics additive, is made.

Mazzel said he is seeking appropriate jobs for the trio, including a requested transfer for Blankenship whose complaint in March sparked the OSHA investigation.

One chemical involved, methyl chloride, is a prime suspect because many of the symptoms are typical of reported methyl chloride intoxication elsewhere.

UNCERTAINTIES ASIDE, events moved quickly this week after months of research.

Monday, OSHA issued the citation; Tuesday, the company said it would not contest the citation or \$300 fine; Wednesday, Milacron executives explained what has transpired since they began producing dimethyltin dichloride.

They also responded to worker allegations the company disregarded employee fears and questions about health and safety.

Witman and Mazzel said:

• Medical surveillance was inadequate, given perfect hindsight.

• OSHA's requirements for improved medical surveillance were anticipated by tests instituted in May and more will be standard operating procedures within a month.

• No worker complaints were ignored.

• Ventilation was improved on various occasions in Building 27, the pilot plant which workers call the "Hell hole."

• External pollution controls always were at least adequate, according to federal regulations.

• No man was bribed with a better job, higher pay or preferred shift to buy his silence.

• No one was told to "hit the gate" because he complained about plant safety conditions. Men were told to accept shift rotations or leave, according to their direct supervisors.

• Absenteeism was the same for Building 27 regardless of whether dimethyltin dichloride was being made there or the men were producing other chemicals. The rate was not "horrendous," as workers charged.

• Workers received medical attention after joining the firm if they were absent because of sickness. After a year of close checks, before men were allowed back from being ill, no symptoms which could have been job-related were reported by company or private physicians.

MILACRON IS waiting for final medical reports on the 18 men from the OSHA-hired physicians before it decides whether to notify possibly 50 men who worked with dimethyltin dichloride since 1970, Mazzel and Witman said.

Mazzel and Witman said Blankenship, who was the most outspoken of the men claiming sickness from working at Milacron Chemical, is telling two different stories when he says he was made ill years ago. According to medical records cited by the Milacron officials, Blankenship told a physician two years ago he was well and that nothing at work made him ill.

(con't.)

Milacron Well Aware Of Chemical Exposure, Worker's Widow Says

BY BEN L. KAUFMAN
Enquirer Reporter

Cincinnati Milacron Chemicals Inc. knew about the anger, depression and impotence among men making dimethyltin dichloride at least six years ago, an employee's widow said Monday.

Josephine Cloe said Milacron officials knowingly exposed the workers to chemicals capable of producing emotional and physical damage.

She dismissed as "nonsense" the statement of two Milacron executives that the firm was ignorant of the production-line emotional and physical problems until Occupational Safety & Health Administration (OSHA) officials alerted them last March 21.

Mrs. Cloe, Cold Spring, Ky., said her husband, Del, and others were affected by the chemicals involved in the dimethyltin dichloride process.

Milacron knew it and did nothing until OSHA intervened after one of Del's coworkers complained, she continued.

MRS. CLOE bases her statements on:

- Del Cloe's 1972 Workman's Compensation claim form. On it, Kenneth Ziegel, then and still Milacron Chemicals personnel manager, said he knew Cloe and other employees suffered methyl chloride intoxication on the job.

(Methyl chloride is an ingredient in dimethyltin dichloride and a prime suspect in OSHA's investigation of the reported illnesses. The other is organic tin involved in the process.)

- Milacron's acknowledgement following an OSHA citation and fine—of insufficient medical surveillance of dimethyltin dichloride workers during the eight years it has made the plastic-related compound at its West Street plant in Reading.

exposure to the dimethyltin dichloride process ruined their sex lives and sometimes their marriages.

TWO WEEKS ago, when OSHA cited the firm, company representatives Dr. Robert C. Witman and Joseph A. Mazzei were asked by two Enquirer reporters whether Milacron had been ignorant of the men's symptoms before until OSHA began investigating in March.

"I think that we would have to say that, Witman, the plant technical director, said, 'I was not aware of any symptoms nor was Joe. Complicating the situation was the tendency of men to 'hide' such emotional and physical problems,' Witman added.

Milacron Chemicals Vice President Mazzei nodded agreement.

Milacron officials also told OSHA they had not seen the symptoms described by the men before March, Ronald J. Young, the OSHA industrial hygienist who has overseen the Milacron investigation since March, confirmed Monday night.

And those are the kind of symptoms that are obvious," Young added.

Monday, Ziegel referred questions to company spokesman John Reading, who refused to comment on Mrs. Cloe's evidence or statements.

Reading would say only Witman and Mazzei "emphatically deny making a statement indicating that the company did not know about methyl chloride exposures that occurred some years before the alleged dimethyltin dichloride exposures which were the subject of the interview with Enquirer reporters. The company will issue a detailed statement in the near future.

When pressed about the symptoms, not the exposure to the chemicals, Reading had nothing further to say.

Reading would not explain why Milacron had said nothing about the interview, until

Mrs. Cloe brought the workman's compensation form to OSHA and *The Enquirer* after reading *The Enquirer* reports of Milacron's saying it was ignorant of the worker's problems.

Monday, OSHA officials said their citation against Milacron could be upgraded from a "serious" to a "willful" violation if new evidence warrants the more serious charge and penalties. They are waiting for Cloe's medical records before commenting further.

"I know I can't do anything for Del," Mrs. Cloe said, "but if any of this does anything to help those other men, then that's worth something."

Milacron workers and former employees interviewed by *The Enquirer* said the dimethyltin dichloride process "scrambled" their minds and left them angry and depressed.

That's just how Del was," she said. "He had exposure to methyl chloride. His mind was blown."

In June, 1972, Cloe went to Newport physician Donald Frickman.

On the Workman's Compensation form, Frickman described Cloe's symptoms as "silly behavior and mental confusion; memory impairment."

Diagnosis: methyl chloride intoxication.

PERSONNEL MANAGER Ziegel answered questions in the company section of the same 1972 form:

- "Have other employees, having the same exposure as claimant (Cloe), been similarly affected?"

Yes.

- "Is it your opinion that claimant contracted this occupational disease in your plant?"

Yes.

- "Do you agree with statements of claimant?"

Yes.

HIS PERSONALITY changed for the worse, Cloe's widow and daughter agreed. He had been a "patient, quiet man" who "didn't speak unkindly of other people."

Working on the new chemical process changed that, Mrs. Cloe said. "Bitchy is the way I would describe it. He wasn't violent or anything. Just bitchy all the time. And that's just not the kind of man he was."

Mrs. Cloe said she wishes today she had requested an autopsy when Cloe's death at age 63 in May, 1976, was attributed to heart trouble.

Other men and their wives complain

asked about Mrs. Cloe's evidence and allegations.

EMPLOYEES AND former employees interviewed by *The Enquirer* said the men raised the health and safety questions fruitlessly in safety meetings and personal interviews over the years.

Cloe, two years short of retirement, didn't take his problems home with him," his widow said. "He worked 12 hours a day, seven days a week. He was exhausted."

Once OSHA started investigating, Milacron began improving medical procedures according to Mazzei. All of OSHA's recommendations, listed on the citation, are to be implemented, he added.

Mazzei said it is inconceivable Milacron supervisors and executives would have been deaf to safety complaints. Milacron policy puts safety before quality or quantity of production, Mazzei stressed.

Improvements were made to building ventilation, in part, because of worker requests, he added.

The suspect production line was closed March 16, according to Milacron; four days before the complaining employee went to OSHA, and it has not reopened. That and the statute of limitations has prevented OSHA from doing more, agency officials said.

INVOLVED IN any re-evaluation of the charge against Milacron is the OSHA Field Operations Manual which says a willful violation may exist where the evidence shows:

- The employer committed an "intentional" and knowing as contrasted with inadvertent violation of the Act and the employer is conscious of the fact that what he is doing constitutes a violation.

- Even though the employer was not consciously violating the Act, he was aware that a hazardous condition existed and made no reasonable effort to eliminate the condition.

"BAD PURPOSE" or "evil intent" need not be proved, according to the manual. "It is sufficient that the act was deliberate, voluntary or intentional as distinguished from those which were inadvertent, accidental or ordinary negligence."

The maximum penalty for a serious violation is \$1000, and Milacron was fined the minimum of \$300 because of its record with OSHA and its willingness to co-operate with the investigation and to correct the problems. The maximum for a willful violation is \$10,000, according to OSHA.

(con't.)

Additional Fines, Citations Issued Against Milacron

BY BEN L. KAUFMAN
Enquirer Reporter

Marital, health and safety problems bedevil workers at Cincinnati Milacron Chemicals Inc., the U.S. Occupational Safety & Health Administration (OSHA) reported Tuesday.

The disclosures came in two separate documents.

- The report on 22 men examined by a team of three physicians and a neuropsychologist.

- Citations issued against Milacron for alleged health and safety violations found at its Reading facility during a major inspection last month.

Family problems arise from workers being heavily exposed during the production of dimethyltin dichloride last winter, according to an OSHA report on the workers in Building 27.

THE REPORT documented the workers' impotence and loss of interest in sex, their rages and depressions, and other emotional and physical problems.

Originally, 18 men were examined, but four more requested the extensive testing and they were included in the report, OSHA officials explained.

The new citations indicate health and safety problems remain at Milacron Chemicals.

The report and the citations won applause from skeptic Ed Blankenship, whose complaints against Milacron provoked the two OSHA inspections of the Reading works this year.

"OSHA did a wonderful job with what they had to work with," he said. "I wish workers in other industries would have more confidence in OSHA."

Blankenship, away from his Milacron job since March because of emotional and physical problems attributed to overdoses of dimethyltin dichloride, originally was so suspicious of Milacron and OSHA he came to *The Enquirer* with his complaints.

ONLY ONE of the citations delivered Tuesday to Milacron involves dimethyltin dichloride production: an emergency eye wash fountain was inadequate.

Milacron spokesman John Reading said all of the hygiene problems cited Tuesday and

at least half of the safety problems have been corrected; others will be completed "on schedule" as required by OSHA.

Milacron will have no official comment on the citations and fines until it has reviewed the citations, he added.

The company has 15 working days to challenge the findings or penalties. It did not challenge the citation or fine based on the first inspection this year.

Most firms allow citations and fines to go unchallenged, Bill Murphy, OSHA safety inspection supervisor, said.

Ronald J. Young, acting OSHA area director and industrial hygienist, characterized Milacron's attitude this way:

"They have really co-operated . . . Not that they really had any choice in the matter."

MILACRON COULD have made it more difficult for OSHA inspectors, led by Young, to get the desired data.

This had something to do with OSHA fining Milacron \$6380 Tuesday, instead of the maximum allowed on the 15 serious violations, \$15,000.

"It's hard to hit somebody with the maximum penalty when they're in there fixing it before you leave," Young added.

Murphy said the problems alleged in the new citations could be found in any major factory: insufficient safety railings, unguarded floor openings, inadequate attention to safety gear, etc.

Acknowledging the public's tendency to minimize the problems because of the apparently low fines, Young said the initial penalty, even if uncontested, is the least of Milacron's problems.

The company is spending money to improve medical surveillance of dimethyltin dichloride workers and to correct other health and safety problems.

IF MILACRON does not meet OSHA's requirements, the firm may be fined much more for failure to comply or repeated offenses, he said.

These requirements included regular physicals of dimethyltin dichloride workers and observance of behavioral changes among those men at work.

Moreover, Milacron is not being fined be-

cause the workers became sick on the job. The fines do not presume Milacron maimed the workers. That is an important legal point to OSHA and Milacron.

Because of a statute of limitations and other problems, that charge by workers could not be proved in a way that would survive a court challenge, OSHA officials have said repeatedly.

One of those problems was that the first complaint to OSHA about conditions in Building 27 came after the men were exposed heavily during what Milacron called "upsets" in the dimethyltin dichloride production last winter. For that reason, OSHA could not take air samples during the critical period. That is the kind of evidence the courts want.

Moreover, dimethyltin dichloride production in Building 27 stopped days before Blankenship first complained to OSHA. Consequently, no air samples were taken there.

Air samples taken in Building 12, where dimethyltin dichloride production continues, show the operation to be within OSHA standards, Young said.

OSHA CITED and fined Milacron for problems it could substantiate: men were sick on the job and the company had not sufficiently watched their health.

The OSHA report released Tuesday summarized the findings of a neurologist, a psychiatrist, an occupational medicine specialist and a neuropsychologist hired by OSHA to examine the complaining dimethyltin dichloride workers from Building 27.

It supports OSHA suspicions and workers' claims that working with dimethyltin dichloride made the men sick but the report by the four-man team says the chemical(s) at fault cannot be specified.

The report points to at least three substances which could have caused the problems reported:

Dimethyltin dichloride, ingredient methyl chloride and byproduct trimethyltin chloride which might be produced, "particularly under upset process conditions."

The team also adds to the men's hopes that the mental and physical problems ease with time away from dimethyltin dichloride and its ingredients:

"From our limited observations, there ap-

pears to be some improvement after the employee is withdrawn from the process."

NONE OF the men who worked with dimethyltin dichloride—but who left Milacron before OSHA ran its first inspection last March—has been involved in the medical examinations.

OSHA's Young said they should get copies of the new report and take it to a physician familiar with occupational medicine. This could be done on referral from family physicians, he added.

Milacron spokesman Reading said the company has not decided yet whether to contact those former workers.

That decision awaits advice of Milacron's consultants and study of the OSHA team's findings, he explained.

One recommendation by the team speaks to a complaint from workers and former Milacron employees interviewed by *The Enquirer*, that they were not briefed adequately to the hazards of dealing with dimethyltin dichloride. It is in tune with OSHA's expectations of improved medical surveillance by Milacron:

"Employees must be properly educated as to the potential toxic effects of materials used in the dimethyltin dichloride process."

THE TEAM also called for annual physicals and careful evaluations of workers' mental states in any acceptable medical program.

Milacron began improving its medical surveillance after OSHA inspected the Reading works in March but before it was cited formally for insufficient medical surveillance.

Tuesday, Dr. John Finklea, a consultant retained by Milacron after OSHA began inspecting the dimethyltin dichloride production and workers, was at the chemicals facility "interpreting" the OSHA study to the employees, company spokesman Reading said.

Finklea formerly headed the U.S. National Institute of Occupational Safety and Health. Today, he is a professor of public health at the University of Alabama.

Finklea was hired by Industrial Hygiene & Professional Services Group of Ampran Optical Corp. once that firm was brought in by Milacron, Reading said.

(con't.)

Social Security Disability Denial Notice

From: DEPARTMENT OF HEALTH EDUCATION AND WELFARE
SOCIAL SECURITY ADMINISTRATION

Date: APR. 22, 1980

EDWARD E BLANKENSHIP
8771 DALY RD
CINCINNATI OH 45231

Claim Number:
268-28-2040 A

WE HAVE DETERMINED THAT YOU ARE NOT ENTITLED TO DISABILITY BENEFITS. IN REACHING THIS DECISION WE CONSIDERED HOW MUCH YOUR CONDITION HAS AFFECTED YOUR ABILITY TO WORK. AFTER CAREFULLY STUDYING YOUR RECORDS, INCLUDING THE MEDICAL EVIDENCE AND YOUR STATEMENTS, AND CONSIDERING YOUR AGE, EDUCATION, TRAINING, AND EXPERIENCE, IT HAS BEEN DETERMINED THAT YOUR CONDITION IS NOT DISABLING WITHIN THE MEANING OF THE LAW. IF YOUR CONDITION SHOULD GET WORSE AND PREVENT YOU FROM DOING ANY SUBSTANTIAL GAINFUL WORK, YOU SHOULD GET IN TOUCH WITH ANY SOCIAL SECURITY OFFICE ABOUT FILING ANOTHER DISABILITY APPLICATION.

YOUR SOCIAL SECURITY RECORD AT THE TIME YOU FILED YOUR APPLICATION SHOWS THAT YOU MEET THE EARNINGS REQUIREMENT FOR DISABILITY PURPOSES UNTIL 12/31/83. ANY ADDITIONAL EARNINGS WHICH MAY BE CREDITED TO YOUR RECORD AFTER THE TIME YOU APPLIED MAY, OF COURSE, EXTEND THIS DATE. (AN EXPLANATION OF THE DISABILITY REQUIREMENT AND THE EARNINGS REQUIREMENT IS GIVEN ON THE BACK OF THIS NOTICE.)

THE DECISION ON YOUR CLAIM WAS MADE BY THE SOCIAL SECURITY ADMINISTRATION ON THE BASIS OF A DISABILITY DETERMINATION BY AN AGENCY OF THE STATE IN WHICH YOU LIVE. PHYSICIANS AND OTHER TRAINED DISABILITY EVALUATION PERSONNEL IN THE STATE AGENCY PARTICIPATE IN MAKING SUCH DETERMINATIONS.

ACCORDING TO YOUR PRESENT EARNINGS RECORD AND THE DATE OF BIRTH WE ESTABLISHED YOU HAVE ENOUGH CREDIT FOR WORK UNDER SOCIAL SECURITY TO QUALIFY YOU FOR RETIREMENT BENEFITS AT AGE 62.

SEE NEXT PAGE

If you believe that this determination is not correct, you may request that your case be re-examined. If you want this reconsideration, you must request it not later than 60 days from the date you receive this notice. You may make your request through any social security office. If you have additional evidence, submit it with your request. Please read the enclosed leaflet for a full explanation of your right to question the determination made on your claim.

If you do not request reconsideration of your case within the prescribed time period, you still have the right to file another application at any time.

Important: See other side for information about your claim. >

JUNE 5, 1980

RBL

Source Of Buried Chemicals' Leakage Sought Along Mill Creek By Ohio EPA

BY BEN L. KAUFMAN
Enquirer Reporter

READING—The Ohio Environmental Protection Agency (OEPA) is hunting the source of poisonous buried chemicals oozing into the Mill Creek.

Bill Barrow, hazardous waste scientist for OEPA, Wednesday said he suspects the "toxic" industrial wastes are buried nearby.

He plans to take soil samples from creekside land occupied by Pristine Inc., a waste-handling firm; Cincinnati Drum Service Inc., which recycles metal drums, and Carstab Corp., the former Cincinnati Milacron Chemicals Inc.

He hopes this will locate the problem; solving it could be much more demanding.

"It's kind of obvious there's something buried in there somewhere," Barrow said.

"My opinion is that it's probably Milacron. Still, to be fair and thorough, we ought to take corings all along there."

Barrow said chemicals leaching into the Mill Creek do not appear to be a clear and present health hazard.

THE DRAINAGE clearly is coming from the 20-foot creek banks and is not part of the surface rainwater runoff. Pristine has agreed to control, Barrow said. That is why he assumes buried chemicals are involved.

He also has names of Milacron employees who reportedly helped bury chemical wastes.

If Barrow is right, USEPA officials want a piece of the action, too, according to Dale Bryson, deputy director of the Region V enforcement division in Chicago.

Waste burial by an industry on its property before last month did not violate federal laws because there were none, Bryson said, but if an old dump is polluting the water now, "We'll move in."

New federal laws allow enforcement action where USEPA can prove an "imminent and substantial" danger to public health or the environment, he explained.

USEPA is prepared to force a company to do whatever is necessary to end the hazard, Bryson added.

COMPLICATING ALL of this is the possibility wastes were buried by previous landowners.

Milacron sold its chemical works recently to Thiokol Corp. of Newtown, Pa. International Minerals & Chemicals Corp. hasn't been active on the Pristine/Cincinnati Drum site for years.

OEPA's Barrow, a member of the Dayton-based land pollution control team, is convinced after an inspection Friday that the oozing chemicals are toxic.

The "smell" warns Barrow the wastes violate federal clean water laws even without a laboratory analysis.

Carstab officials "agreed to let us do it," Barrow said of the soil tests, so OEPA will not require a search warrant to go on the former Milacron property.

Pristine Board Chairman Dr. Riley Kinman said he has not heard from Barrow, but promised, "We will co-operate."

Oren Long, president of Cincinnati Drum, could not be reached for comment. Long is "out of town," according to accountant Dave Wheeler, who is "not sure" when he will return or whether OEPA will be allowed to drill without a search warrant.

Ralph Binns, veteran Milacron executive who remains as president of Carstab, was not available for comment Wednesday. An aide said Binns was busy with visiting Thiokol officials.

IN COLUMBUS, Barrow's OEPA colleague Dan Redman said Ohio laws did not regulate this kind of industrial dumping before 1976, so long as it did not seep into ground or surface water.

New state law brought active onsite disposal under increasingly stringent state control, said Redman, assistant chief of OEPA's office of land pollution control.

But no reports are required if the onsite dumps were not used after 1976, he added.

Should anyone prove chemicals leaching into the creek come from buried wastes, OEPA and USEPA could order the landowner to control the seepage.

This could end up in court, USEPA's Bryson said. The landowner might deny responsibility for contemporary prob-

lems caused by wastes buried according to formerly valid law or in the absence of regulations.

The problem may be older than official concern.

Pristine's Kinman said he tried to bring the seepage to OEPA attention before his firm was founded. "It's been there for years and years and years," Kinman, a University of Cincinnati professor of civil and environmental engineering, said.

Friday, Barrow took samples along the creek bank. He plans to have them and soil samples analyzed.

"Then we'll try to match them up. It's the only way we can prove where they're from."

IN ADDITION to getting permission or warrants to make the soil tests, Barrow needs OEPA approval for at least \$2,000 in analytical work by a private laboratory.

All this could take two months, he judged.

Working with Barrow on the soil sampling will be OEPA geologists and members of the agency's Emergency Response team.

A former Milacron employee told Barrow about the buried wastes. He also identified men he says helped bury chemicals on the Milacron property.

Barrow said he found leachate smelling strongly of sulfur along the creek embankment last week. That could involve all three suspect properties.

Milacron bought Carlisle Chemical Works in 1943 and built the present West Street plant in 1950.

This is the same Milacron facility where employee complaints in 1973 led to federal fines for 15 "serious" health and safety violations.

Founded nearby in 1940, Carlisle's products often included sulfur compounds. This continued after becoming a Milacron subsidiary.

Nearby Pristine, founded in 1974, is on Big Four & Smalley Rds. property leased from neighboring Cincinnati Drum. The land on which they operate belonged to International Minerals & Chemicals Corp.

The International Minerals facility was built in 1943. Sulfuric acid and fertilizers were made there in the postwar era. It was closed in 1969, according to an Enquirer story that year.

FRI JUNE 6, 1980 RAL

Hazardous Wastes A Grave Threat, Chemist Warns

BY SUE MacDONALD
Enquirer Hamilton Bureau

HAMILTON—A University of Cincinnati chemist Thursday described the Chem-Dyne plant in Hamilton as the "best worst example of how not to dispose of hazardous wastes" and compared it to New York's Love Canal because of its potential human health problems.

Speaking at a hazardous waste seminar at the Miami University Hamilton campus, chemistry professor Harry Mark said the types of chemicals that were brought into the Chem-Dyne plant and are now buried near the plant may pose a threat as serious as the Love Canal in Niagara Falls, N.Y., where residents have been evacuated from houses built on a former chemical landfill.

"The contention that you have no Love Canal in Ohio is ridiculous," Mark said. "You have one right here in your backyard. I think it is fitting that we are sitting here in Hamilton talking about hazardous wastes," he said in his opening remarks.

MARKS, WHO headed a court-ordered team to inventory wastes at Chem-Dyne, claimed former operators of the firm buried chemicals near a city park in the North end, chemicals that "slowly but surely will seep" out of the ground if the containers in which they are stored break down.

Should that happen, Marks said the only solution would be to dig up the chemicals to a depth of 60 feet—a solution that probably would be economically unfeasible.

Marks and the four panelists who participated in the seminar agreed that the costs of dealing with the tons of hazardous wastes created by Ohio manufacturers each year will be staggering.

• Philip Watson, president of a progressive liquid treatment company in Xenia, said the technology and research that deal with landfilling, storing, burning and treating hazardous wastes is in an "embryonic stage" that will be triggered by recent guidelines handed down as part of implementing the Congressional Resource Conservation and Recovery Act.

The experience at Chem-Dyne "really woke me up and shook me up" to the seriousness of the disposal of hazardous wastes, he told the audience of about 30 persons.

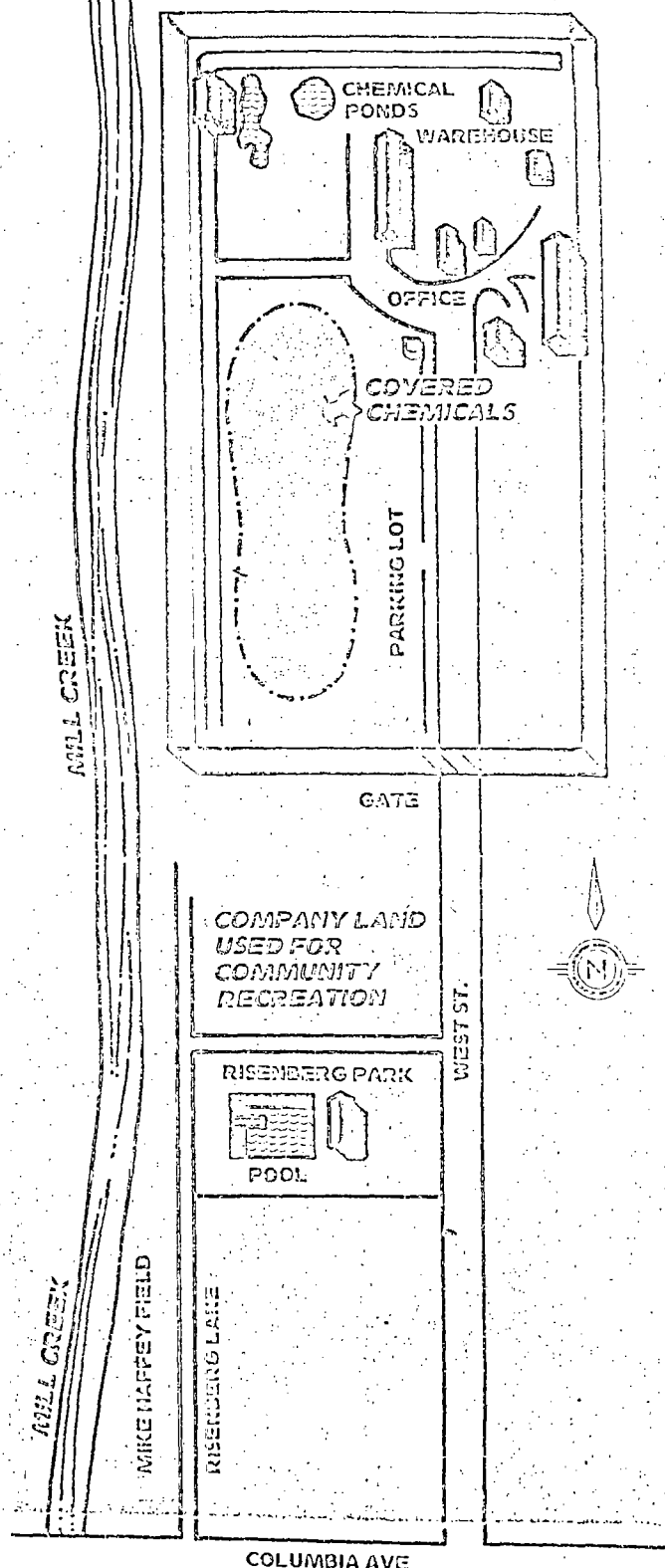
• John Barker, chief of environmental engineering at Armco Inc. in Middletown, said his firm began a year ago to inventory its wastes in anticipation of the recently distributed guidelines from the U.S. Environmental Protection Agency about the recovery act.

Because the guidelines give Ohio industries only 90 days to register with the government the types of wastes they generate, Barker predicted there will be "an awful lot of screaming, rendering of cloth and tearing of hair by industries that have not begun this inventory."

• Paula Cotter, staff member of the Ohio EPA hazardous materials section, said Ohio soon must face the problem of deciding where to store hazardous wastes because "rural areas are strongly opposed to taking cities' wastes."

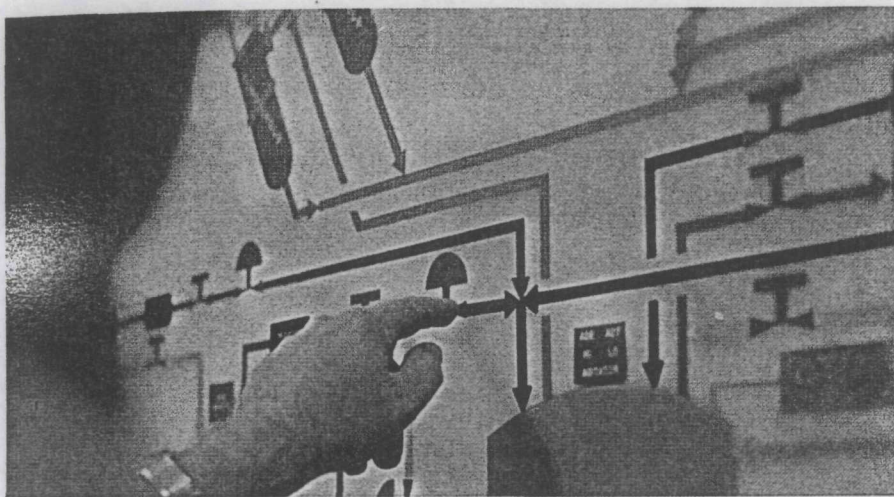
She agreed with Watson's contention that 70% of the liquid wastes now generated in Ohio can be pre-treated safely with present technology.

Barker said federal officials at a recent Washington conference estimated that the cost of dealing with the nationwide problem of hazardous waste disposal may equal the amount of money already spent by air and water pollution measures in the last decade.



POISONOUS WASTES: Poisonous industrial wastes are buried near Rosenberg recreation areas, according to a map prepared for state officials. The map is duplicated above. The wastes may be stored under property of Corstab Corp., the former Cincinnati Milacron Chemical Inc.

ATTACHMENT C



Above: Schematic flow-chart display panel in our Control Center enables plant personnel to monitor process conditions and step-by-step progress of complex chemical reactions.

Left: Control Center houses a mini-computer and monitoring equipment for advanced computer process control of multi-step chemical reactions. This capability insures quality and consistency of our specialty chemical products and helps improve productivity.

Carstab Corporation is a wholly-owned subsidiary of Thiokol Corporation, an international high-technology company whose headquarters are located in Newtown, Pennsylvania. Specialty chemicals and their application to customer needs are a significant part of Thiokol's worldwide business. In addition to Carstab's line of performance chemicals which are described in this booklet, Thiokol produces liquid polysulfide polymers, pre-mixed additive concentrates, sodium borohydride, industrial biocides for plastics, dry film photoresists for printed circuit board production, UV-curable screen inks and clear coats, rubber chemicals, fine chemicals, lubricants and greases, and oil field proprietary chemicals. Thiokol is also a leading producer of solid rocket motors for defense and space applications.

Carstab Corporation, West Street, Cincinnati, Ohio 45215; Telephone: (513) 733-2100. In Canada, contact Thiokol Canada, Ltd., Horner Avenue, Toronto, Canada M8ZAX5; Telephone: (416) 259-1141. In Europe, contact Carstab Corporation, B3680, Maaseik, Belgium; Telex: 846-39915.

PVC Heat Stabilizers

PVC compounds designed for processing by extrusion, blow molding or injection molding always require a heat stabilizer to inhibit loss of physical properties and appearance of the plastic caused by the high temperature and shear during processing. In both pigmented and clear rigid PVC applications, such as pipe and fittings, siding and window profiles, bottles, film and sheet, Carstab's organotin stabilizers have the major market share in the U.S.A. and Canada.

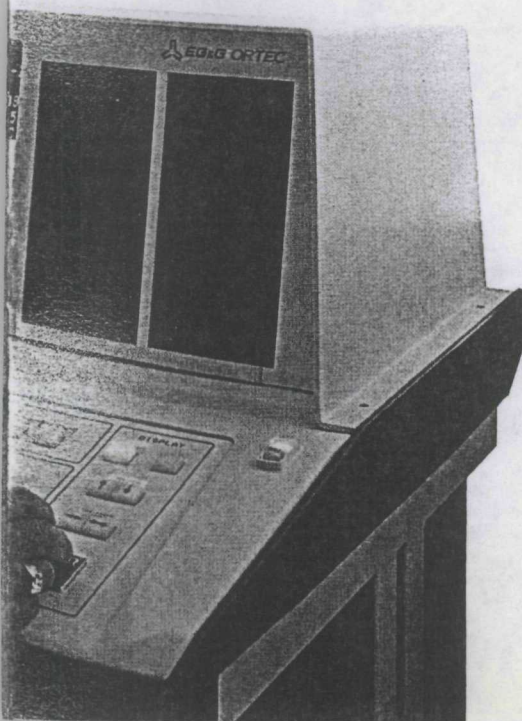
Carstab pioneered the development of high-performance tin mercaptides with the introduction of the first methyltin stabilizer, ADVASTAB® TM-181, in 1971. Since then, this product and our more recently developed heat stabilizers have become the most widely accepted products used in the rigid PVC stabilizer market.

Another first for Carstab occurred in 1977 with the introduction of a unique lubricating



Above: Our modern specialty chemical plant is equipped for both batch and continuous operations with strict attention directed to safety of our plant personnel and environmental control.

Below: Computerized X-ray fluorescence spectrophotometer is used for rapid, accurate analyses of the elemental content of our chemical products.



stabilizer. This multi-functional product incorporates both heat stabilizer and lubricant functionality facilitating processing and simplifying materials handling.

Organotin Mercaptides

ADVASTAB® tin stabilizers offer rigid PVC processors many advantages, including lower stabilization costs, increased production rates and excellent retention of physical properties.

ADVASTAB TM-181, the first high-performance tin stabilizer, can be used in all applications requiring excellent dynamic stability during high-shear processing. ADVASTAB TM-181 offers high resistance to early yellowing (discoloration occurring early in the processing cycle) and long-term stability for protection during regrind processing and during extended residence time in equipment. These properties make it the product of choice for fabricators of siding, profiles and injection-molded articles. In addition, since its introduction, so much extrusion and outdoor weathering performance experience has been accumulated for ADVASTAB TM-181 that it has been adopted by siding manufacturers as the standard of the industry.

ADVASTAB TM-181FS, a food grade equivalent of TM-181, has been approved for use in PVC food packaging by numerous European regulatory agencies, including those in West Germany (BGA), the United Kingdom (BIBRA), Switzerland (EGA) and others.

ADVASTAB TM-187 is a second generation, high-performance product which was developed to offer improved early color retention, along with outdoor weathering properties comparable to ADVASTAB TM-181 but at lower costs.

ADVASTAB TM-692 and TM-592, our third generation, high-performance stabilizers introduced in 1975, gained rapid acceptance in pipe and conduit extrusion. TM-692 became an industry standard of performance and should be considered in any extrusion application where initial color, early color hold and economy of use are essential to the formulator.

Carstab has a continuing pro-

gram to develop improved stabilizers for every rigid PVC process, including the extrusion of pipe, siding and profiles, injection molding and injection blow molding. Early in 1981, Carstab introduced ADVASTAB TM-694, a unique low-cost stabilizer which offers significant cost/performance advantages in most rigid PVC pipe and profile applications. Its use provides excellent initial color stability with an exceptional ability to maintain early color during processing, even compared to high-efficiency methyl or butyltin stabilizers.

Two other low-cost stabilizers were introduced in 1980. ADVASTAB TM-764 is designed to provide the formulator of extruded weatherable profiles and siding with reliable processing and excellent retention of physical properties on exposure to weathering. ADVASTAB TM-604 provides the formulator of injection-molding compounds with a new level of cost/performance, ease of processing and retention of color and physical properties in the molded article.

ADVASTAB TM-948 is a high-performance stabilizer recommended for use in bottles, sheet and film applications where superior color and low-odor are required.

Lubricating Stabilizer

ADVASTAB LS-202, Carstab's one-pack lubricating stabilizer, is a new additive concept for rigid PVC extrusion. The product was designed to provide the complete lubrication requirements, both external and internal, and the tin stabilization requirements necessary for high output twin- and four-screw pipe production. Prior to the introduction of this product to the U.S. pipe industry, formulations were based on numerous combinations of individual ingredients.

Lubricating stabilizers offer simplified inventory and additive handling by reducing the number of micro-ingredients. Weighing errors are nearly eliminated and each PVC resin particle is exposed to the same stabilizer-lubricant ratio and concentration. These factors result in more uniform powder blends, minimizing batch-to-batch variation which results in reducing the amount

of scrap pipe generated. Some pipe plants have found higher output rates when using ADVASTAB® LS-202 compared to their formulations with single ingredients.

In addition, the use of a lubricating stabilizer by a pipe company will free up a great deal of time normally devoted to developing formulations based on thousands of possible combinations of individual ingredients. This will allow pipe companies more time to optimize the mechanical aspects of the extrusion process and do more development work on new products for their line.

The simplification in technology offered by the lubricating stabilizer is of value to the pipe industry internationally, particularly in those countries where operation technical skills are difficult to obtain.

The lubricating stabilizer concept is also applicable to the extrusion of siding and profiles. Products for these applications are under development.

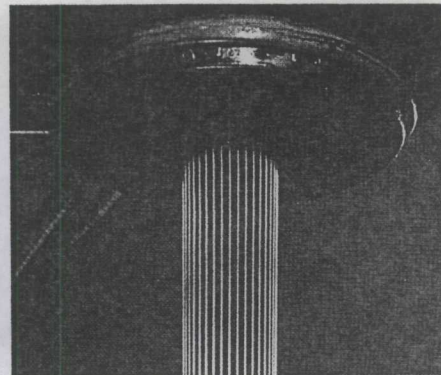
Antioxidants

Antioxidants retard the degradation of oxygen-sensitive polymers during processing and for the life of the product thereafter. Oxidation produces embrittlement and discoloration of the polymer.

CARSTAB® DLTDP (dilauryl thiodipropionate), DSTDP (distearyl thiodipropionate) and DMTDP (dimyristyl thiodipropionate) are peroxide decomposers which are most effective when used in synergistic combination with hindered phenolic and hindered amine antioxidants. CARSTAB DLTDP has widespread application in polyethylene, ABS (acrylonitrile butadiene styrene) and HIPS (high-impact polystyrene). CARSTAB DSTDP is employed where its greater lubricity and thermal stability are required and is widely used in polypropylene. CARSTAB DMTDP has properties intermediate between DLTDP and DSTDP and demonstrates many of the advantages of both. CARSTAB DLTDP and DSTDP can be used in high-density polyethylene and polypropylene food contact applications in compliance with the appropriate FDA regulation.

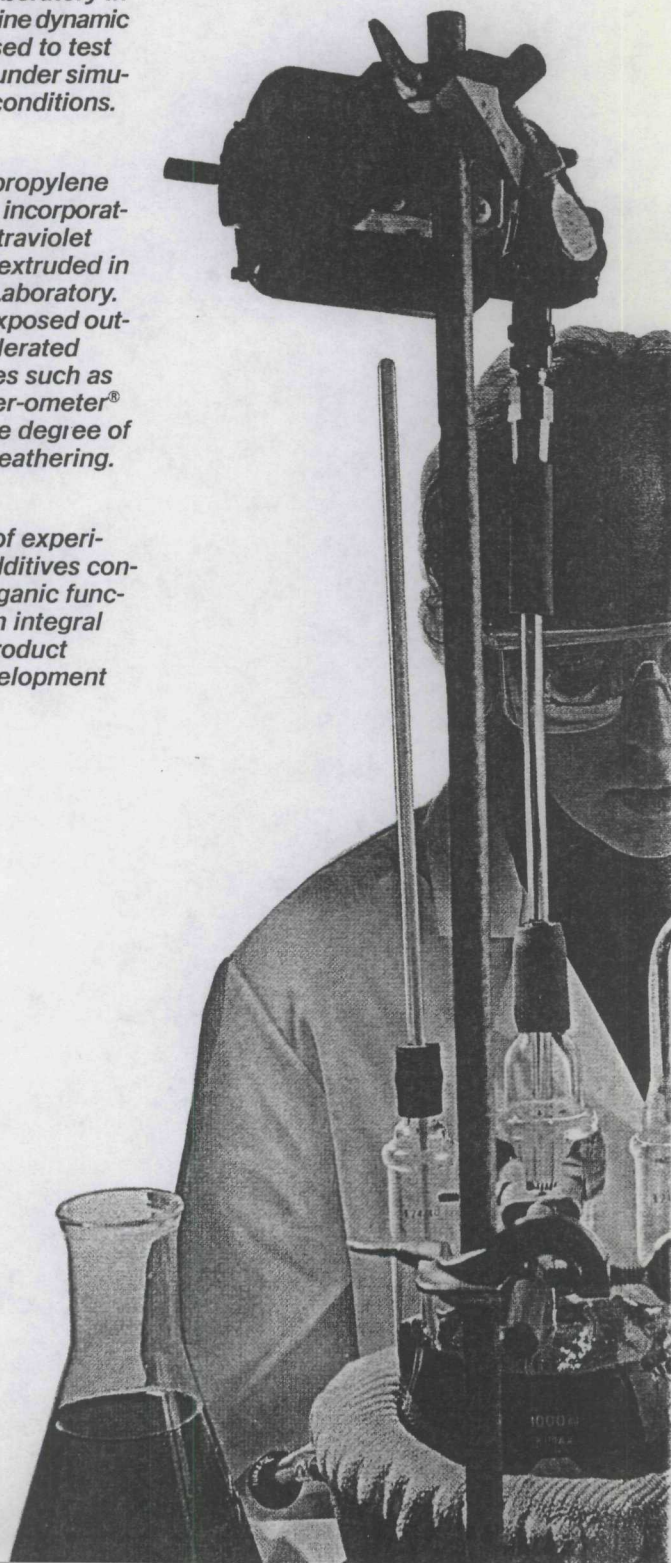


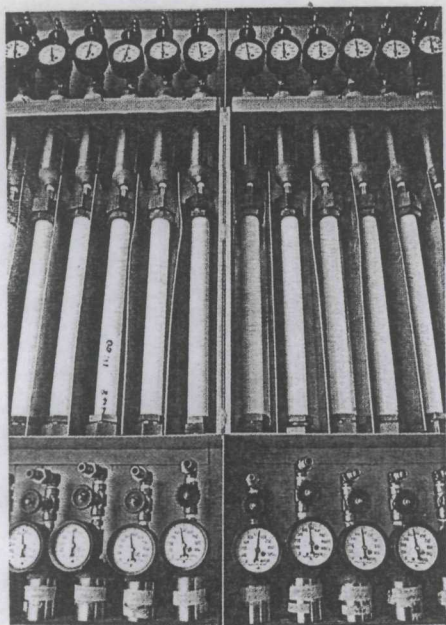
Above left: The Brabender Plasti-Corder,® a laboratory instrument to determine dynamic heat stability, is used to test plastics additives under simulated processing conditions.



Above right: Polypropylene multifilament fiber incorporating CARSTAB® ultraviolet light stabilizers is extruded in our Applications Laboratory. The fiber will be exposed outdoors and in accelerated weathering devices such as the Xenon Weather-ometer® to demonstrate the degree of protection from weathering.

Right: Synthesis of experimental plastics additives containing various organic functional groups is an integral part of our new product research and development program.





Above: Hydrostatic testing of PVC potable water pipe containing ADVASTAB® heat stabilizers and Lubricating Stabilizers is carried out on our test racks. This laboratory facility is used for testing our developmental products and to provide technical service to our customers.

Below: ADVASTAB Lubricating Stabilizers, ADVASTAB organotin heat stabilizers and ADVAWAX® lubricants are used for efficient processing of rigid polyvinyl chloride into a wide range of common items such as pipe, house siding, window profiles, injection molded fittings and bottles.



Ultraviolet-light Stabilizers

Synthetic polymers are susceptible in varying degrees to degradation by the ultraviolet light in ordinary daylight resulting in loss of physical properties and discoloration. CARSTAB® UV stabilizers are octoxy-benzophenones which absorb the damaging 300-400 nm light wave lengths and convert this radiation to a less-damaging wave length. Both liquid and solid UV stabilizers are available so that the user can select the best product for his needs.

CARSTAB 701 and CARSTAB 702 are unique liquid benzophenone light stabilizers that retard color development and prevent loss of physical properties in polyolefins, flexible PVC, polyesters and various resins used in coatings. These liquid products eliminate dust problems since they are highly soluble and compatible in a wide range of resins and coating solvents. Due to their low viscosity, they are easily pumped and accurately metered into processing or mixing equipment. Both products exhibit low volatility and low toxicity.

CARSTAB 700 (2-hydroxy-4-n-octoxybenzophenone) is a solid crystalline product widely used in polyolefin formulations. Both CARSTAB 700 and CARSTAB 701 are approved for use in polyolefins for food contact applications.

Synthetic Waxes

Synthetic waxes are employed for one or more of their unique properties, such as high-melting point, resistance to organic solvents, water insolubility, and high-surface orientation characteristics. These properties enable them to act as excellent internal-external lubricants, anti-blocking agents, pigment dispersants and mold-release agents for plastics applications and as defoamers for the paper industry.

ADVAWAX® bisamide synthetic waxes provide a range of desired melting points, controlled compatibility and several levels of lubricating

efficiency. These include ADVAWAX 240, 275, 280, 290 and 2610.

These waxes are offered as light-colored, easy-to-use fine beads and are compatible with most natural and synthetic polymers. ADVAWAX 280 is widely used as a processing lubricant in ABS and rigid PVC compounds. ADVAWAX 2610 is specifically produced for superior performance in the manufacture of defoamers for the paper industry.

These bisamide waxes are also used to control the softening points of asphalts, dipping waxes, potting compounds and hotmelt adhesive formulations and as release agents. ADVASTAB® 240, 280 and 290 can be used in food-contact applications in compliance with the appropriate FDA regulations.

Organophosphorus Compounds

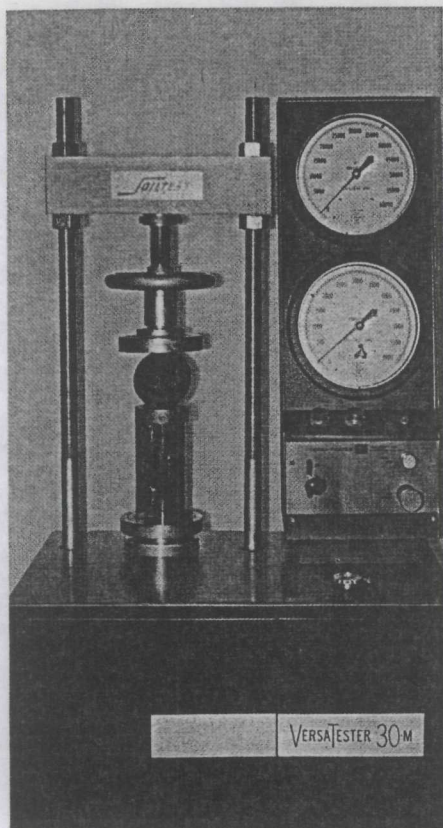
Carstab Corporation manufactures a range of quaternary phosphonium salts. These products are unique catalysts and accelerators with highly specific functionality. They are irreplaceable in certain applications.

Quaternary phosphonium halides are generally neutral ionic salts which are moderately reactive. These salts have been recommended as catalysts for the preparation of phenolic and epoxy resins, polyesters, polycarbonates, polyacrylates, polyolefins and silicones.

As examples of some areas of use, quaternary phosphonium compounds have found use as "phase transfer catalysts" in fluoroelastomer vulcanizing systems for applications requiring a low-compression set; and as very selective catalysts in liquid epoxy resins for the coatings industry.

Asphalt Additives

Carstab Corporation is the major producer of asphalt anti-stripping additives which improve the durability of bituminous concrete roads. These products enable asphalt to more effectively penetrate the moisture film that is always present on paving aggregate, thereby creating a stronger, more permanent bond between asphalt and aggregate. This stronger bond increases the strength of the pavement and retards "stripping" of the asphalt from



Top left: An accelerated water exposure test demonstrates how PAVE BOND™ anti-stripping additives prevent stripping of asphalt from bituminous concrete aggregate. After exposure the aggregate sample on the right retains a complete coating of PAVE BOND AP treated asphalt. The sample on the left shows severe stripping of untreated asphalt.

Above: A compression test instrument is used in our Asphalt Additive Laboratory to measure the strength of bituminous concrete containing PAVE BOND anti-stripping additives.

Bottom left: A bituminous concrete test strip containing PAVE BOND AP SPECIAL is laid down on an Interstate Highway. Paving strips in regions of the United States with different climatological conditions are used to demonstrate the effectiveness of PAVE BOND anti-stripping additives.

the aggregate by moisture encountered under normal road conditions.

Carstab was one of the pioneers in the field of anti-stripping agents. Our first generation products—PAVE™ 100, PAVE 192, PAVE BOND™ and PAVE BOND 192—were among the early products in the field and became industry standards until 1977. In that year, Carstab introduced PAVE BOND LP and PAVE BOND SPECIAL which were easy-to-handle liquids and much more cost-effective than existing products. They were readily accepted by state Departments of Transportation, asphalt companies and contractors because of their excellent performance and the ease with which they could be handled.

Now PAVE BOND AP and PAVE BOND AP SPECIAL have been introduced as commercially available anti-stripping agents that demonstrate a high level of performance with all types of aggregate—siliceous (acidic granite) to calcareous (basic limestone). These new products exhibit other advantages compared to conventional products because their performance is not reduced by reactive asphalts as with other types of additives. In addition, they are extremely heat stable in the presence of asphalt allowing storage of treated asphalt for extended periods of time.

PAVE BOND AP and PAVE BOND AP SPECIAL find rapid acceptance by state Departments of Transportation. Since pavement failure due to water stripping occurs throughout the depth of the roadbed, a program of user education is underway with state and federal agencies to acquaint them with the benefits of using Carstab's new products in the base and intermediate courses as well as in the wearing surface. Part of this program involves an intensified research and development program to develop new and more cost-efficient products and establish their effect on road life.

Petroleum Additives

Carstab Corporation produces extreme pressure (EP) additives for slide-way lubricants, heavy-duty gear lubricants and metal-cutting fluids. These additives provide the sulfur and/or chlorine that EP

lubricants require to function effectively. Lubricant compounders can choose from a broad line of additives to optimize their formulations.

The CAR-A-VAN® 6000 series of products consists of both sulfurized and sulfur-chlorinated additives which are available in either active (corrosive to copper) or inactive (non-corrosive to copper) forms. CAR-A-VAN additives are soluble and compatible with high Viscosity Index paraffinic and naphthenic oils. These products offer versatility along with high performance.

Carstab Corporation offers a broad line of other additives, including emulsifiers and chlorinated hydrocarbons for EP cutting oils.

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